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Introduction to Studio

In January 2005, the City of Seattle Department of Planning and Development (DPD) enlisted the help of first year graduate students in the University of Washington's Department of Urban Design and Planning to assist the City in its long-term planning efforts in South Lake Union. Much has changed in this center city neighborhood since development of the 1998 Neighborhood Plan, and the City has determined that an updated vision is warranted. The graduate students undertook a six month long interdisciplinary planning studio project, guided by the following purposes:

- To examine existing plans and studies for consistency of vision
- To prepare preliminary analyses supporting parallel planning and engineering processes such as the Mercer Street Revisions and the South Lake Union Street Car
- To identify focus areas of opportunity for further research and recommendation in support of the planning process
- To conduct research and analysis in those focus areas, generating strategies for implementation in each area

The students spent the first ten weeks researching existing conditions, both by analyzing current planning documents and through fieldwork. At the end of this period, they prepared existing conditions memoranda identifying areas of opportunity for further research and analysis. Appendix X contains these memoranda as well as a summary of their contents. With direction from the Department of Planning and Development, students then undertook a gap analysis and drafted neighborhood improvement ideas for South Lake Union within eight specific topic areas: Community Identity, Urban Form, Connectivity, Streetscapes, Housing, Green Development, Adaptive Reuse, and the Unnamed Triangle, a 21-block area adjoining South Lake Union. The result of this process is a 200 page document with all their findings, which will serve as the starting point for engaging the community in developing an updated vision for South Lake Union.

In June of 2005, DPD sponsored a neighborhood open house at the South Lake Union Park Naval Reserve Building, where students presented their work to the public in order to generate awareness and gather feedback from community members. Although this event concluded the student's formal involvement, the South Lake Union planning process will continue. The ideas in this document represent strategies that the City and the community together can evaluate, modify,

and/or use as starting points for further discussion. It is our recommendation that the city and community use this document as a toolbox as they work to create the best possible future for South Lake Union.

Introduction to this Report

This report is presented in eight sections. The following summaries briefly describe each of these sections.

Community Identity

Community identity bonds citizens and drives commerce. South Lake Union's current identity is a patchwork of uses, perceptions and history. Through a focus group led by the Community Identity team, local residents, business representatives, and members of non-profit and social service organizations identified two themes that reflect both the past and the emerging identity of South Lake Union: maritime heritage and sustainability. This section discusses concepts and benefits of community identity and presents the process that the Community Identity team utilized to produce recommendations on community identity and branding implementation strategies for the City of Seattle.

Green Development

The future large-scale redevelopment of South Lake Union provides an enormous opportunity to improve the area's environment. The Green Development section presents goals and strategies for the City of Seattle to address the environmental sustainability of South Lake Union's stakeholders. This section focuses on the importance of green development within the following areas: water, energy, habitat, material use (waste), built environment and education. Green Development also provides an overview of existing strategies utilized to encourage sustainable development in both Seattle and other U.S. and international neighborhoods.

Connectivity, Wayfinding and Walkability

Travel into, around, and out of South Lake Union is impeded by its topography, insufficient signage, and scarce services. Improvements are necessary to accommodate the neighborhood's expected growth. This section presents recommendations that enhance the entrances into South Lake Union and facilitate travel within the neighborhood. It also contains the results of a GIS analysis of neighborhood walkability and presents recommendations based on those results.

Streetscapes

South Lake Union is currently automobile-oriented. Adding pedestrian-oriented amenities will improve the character and vitality of the neighborhood by putting more people on the streets and facilitating local mobility. The streetscapes section presents recommendations that enhance streets and public spaces. Thomas Street and Denny Park are given particular attention.

Urban Form

South Lake Union's incoming development will greatly affect its urban form. The urban form section consists of three 3-Dimensional models of South Lake Union that visually communicate potential future changes in the neighborhood. One model illustrates the current urban form while the others encompass two different alternatives for accommodating expected growth.

Housing

South Lake Union's future population is projected to increase by 8,000 households by 2024 (Seattle Comprehensive Plan 2005). Accommodating growth by addressing housing diversity, affordability and ownership is integral to present and future South Lake Union residents. The Housing Section addresses these and related housing issues identified as drivers for neighborhood community development and economic sustainability. The Housing section provides an overview of methods that the City of Seattle and other municipalities currently utilize and a table of organizations (Organizations Matrix) with potential to address the area's housing issues. The housing section also includes policy and incentive recommendations that could be adopted by the City of Seattle to further address future housing issues within South Lake Union.

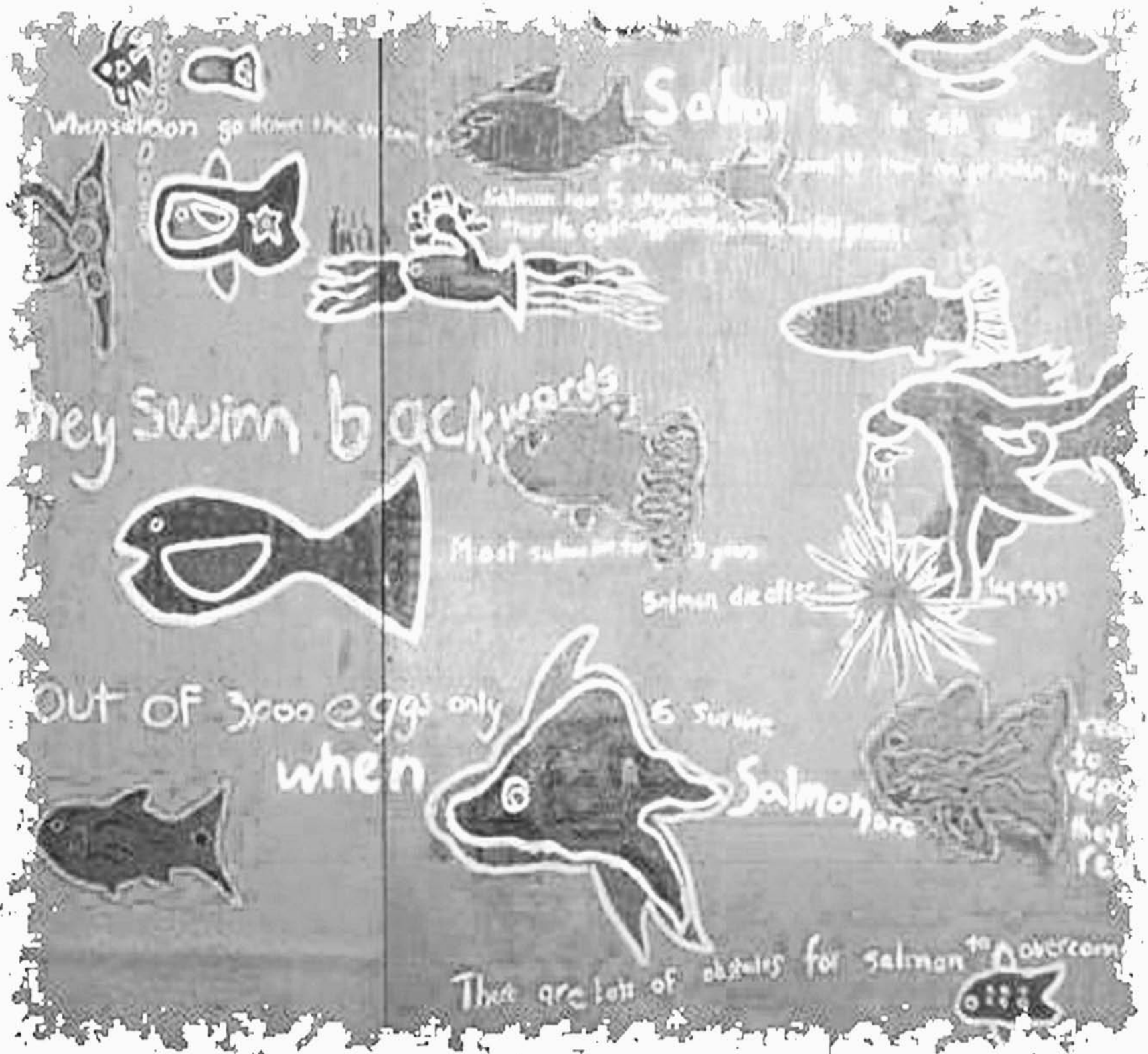
Adaptive Reuse

Adaptively reusing buildings will help to preserve South Lake Union's historic character. The Adaptive Reuse section addresses the convergence of the area's heritage with future redevelopment. This report investigates the policies used by Seattle and other cities to promote adaptive reuse and highlights obstacles in order to provide a critical overview of adaptive reuse opportunities within South Lake Union. A third element to this section focuses on a local case study highlighting the adaptive reuse process. A policy recommendation to the City of Seattle that aims to encourage adaptive reuse in Seattle is also identified.

Triangle Study

There is a 12-block area of land west of South Lake Union bounded by Broad Street, Denny Way and Aurora Avenue. This triangle area is currently under-utilized, but has great potential considering its location between Seattle Center and South Lake Union. This section details three alternative development plans for the triangle, each encompassing four common elements: connectivity, housing, accessibility and mixed use/services.





Executive Summary

This report is a summation of the Community Identity Team's efforts to identify and assess potential approaches to be used to help define the identity of the South Lake Union (SLU) community. It is comprised of four main sections and an appendix which includes supporting materials. The first section will introduce the purpose of this quarter's work. The next section reviews the research methods utilized for this report. The third section will describe the findings from the research efforts, including: information on South Lake Union's history, its existing conditions, planned actions in the neighborhood by the City of Seattle, and a summary of a focus group meeting held to identify themes in SLU. Finally, the assessment section will illustrate implementation suggestions that will increase the community identity of SLU. The primary recommendation is for an organizational structure within SLU that would include existing neighborhood organizations, such as the South Lake Union Friends and Neighbors (SLUFAN), and a new business improvement district (BID). The appendices include a matrix of potential community identity implementation strategies, a brief focus group summary, an annotated case study bibliography and results of feedback from the public open house, held June 7, 2005.

Introduction

The Community Identity Team was charged with identifying potential approaches to be used in branding or defining the community. Work to this end has entailed researching local and academic definitions of community identity and branding, noting planned actions in the area on the city's part, and looking into case studies within the city and nation as well as internationally. Efforts have been taken towards identifying a particular community identity and brand. Work in this regard has involved not only examination of historic and existing conditions in South Lake Union (SLU), but also has considered the input from members of the community through participation in a focus group.

As the work for this team has two distinct avenues, the products take two distinct forms. This report outlines the process of research as well as the recommended strategies the city and other stakeholders should undertake to implement the chosen community identity or brand. The public was presented two different but related themes, sustainability and maritime heritage, at the open house on June 7, 2005. The development of these themes tied directly to the earlier research

on potential themes and strategies. To reinforce the importance of community support for potential identities, the public at the open house provided feedback on the identities and implementation strategies presented. Results from this feedback are included as an appendix.

Methods and Process

Various research methods and avenues have informed the work of this team. The process began by conducting a survey of academic definitions of community identity as well as studying the City of Seattle's definition of the topic. A study of the place branding process was also conducted to provide a background on this new practice. Research on other cities and neighborhoods that have strong community identities or have undertaken the branding process was conducted—results are summarized in the appended matrix and in the annotated bibliography. These case studies encompassed cities and neighborhoods throughout the city, state and country, as well as those abroad.

Work was further informed by research on the area itself. This included using the information provided by the History and Historic Preservation team and studying the proposed actions for SLU by the Mayor. Onsite observations were conducted in which nearly the entire area was covered on foot to provide a better understanding of what is and is not on the ground. During these outings, landmarks, gateways, existing themes and community assets were focused on.

Results and Discussion

Community Identity Definitions

Community identity definitions, in general and locally, were sought to better undertake this venture. To this end, academic definitions in various fields were identified as well as the definition endorsed by the City of Seattle. Subsequent research is summarized below. Studies from outside these two searches also uncovered another way of looking at community identity; namely, that community is not something you have, it's something you do. This suggests that implementation strategies must not only address physical issues within the community, but also include activities and events to bring a community together.



Academic Definitions of Community Identity

Academic discourse on the topic of community identity is an interdisciplinary affair that crosses the studies of Planning, Social Psychology, Sociology, Political Science, Anthropology, History, and Ethnic/Cultural Studies. Each field derives a different definition and perspective on the term “community identity.”

In spite of wide ranging discussions on community identity from different fields, one common point resonates: the term ‘community’ has been an elusive concept for scholars to define (Mayo 2000). As the use of the term becomes increasingly popular, its definition dilutes into merely a persuasive tool or buzzword. Discourse on community identity within the field of Sociology is particularly concerned with this problem of definition. One major aspect of these definitions is the emphasis that community identity is a socially constructed phenomenon. “Central to this constructionist approach is the idea that collective identity is mutable, contingent, a product of social ascriptions, and a reflexive process involving internal and external forces and actors” (Gotham 1999). The struggle between classes and whether community identity is administered from the “bottom up” or “top down” are some of the questions this field explores.

Social psychology looks at community identity from several different approaches including the functionalist (empirical scientific methods) and discursive (derived from the theory of linguistics). Both break down the concept further into territorial-based and social relations-based. “This definition of community identity as territorially based implies the existence of distinctive but connected levels (the neighborhood, the zone, the city) which prefigure the presence of two opposing dimensions: the micro-dimension and the macro-dimension” (Colombo and Senatore 2005). The exploration into concepts of how the human psyche develops a real sense of “we” and “ours” rather than “theirs” is at the core of social psychology studies.

The field of planning is also concerned with issues of class in its discussions on community identity. In an article relevant to the current situation at South Lake Union from the Journal of the American Planning Association, Spain discusses the scenario of “Been-heres versus come-heres” (1993). The author quotes contemporary Carl Moore for what he deems “a realistic definition of ‘community’ from a planning perspective: ‘Community exists when people who are interdependent struggle with the traditions that bind them and the interests that separate them so that they can realize a future that is an improvement on

the present” (Spain 1993). From a planner’s perspective, each community has its own unique community ideology that planning professionals should be conscious of (Hibbard and Davis 1986). Sometimes, as illustrated in this article, conflict in community ideology can arise between different groups: “Been-heres have actually created the traditions that shape the community, while come-heres are attracted by their image of those and, in fact, hold different perceptions of those traditions” (Spain 1993). By understanding the multifaceted concepts of community identity – its roots in social construction, its history steeped in class conflicts, the psychological sense of territory and the idea of ‘we’—the roadmap to a SLU identity is given context.

City of Seattle Definition of Community Identity

Ways of defining community identity are suggested in Seattle’s Comprehensive Plan update, “Towards a Sustainable Seattle.” Four ways suggested are through reflecting a neighborhood’s unique history, natural features, culture(s) and sources of community pride. This definition helped inform field work undertaken in the neighborhood to identify existing conditions. It pointed directly to the unique industrial history of the area and necessitates that parks, such as the Cascade Playground and developing South Lake Union Park, be incorporated into the identity and implementation of identity in the area.

This guide presents some challenges to forming and identifying a community theme. In an area such as SLU that is undergoing immense and dramatic changes to its landscape and population base, existing natural features, culture and sources of community pride that are included or help inform an identity must be guaranteed a place in the community in the future. At the same time, environmental and population changes must be accommodated for in an identity so as to be inclusive of the short and long term futures of the area.

The Comprehensive Plan also suggests some avenues for implementation of community identity. Community facilities are valued in neighborhoods and are a fitting location for many of the events and activities suggested in this report. Further, partnerships with neighborhood and community-based organizations are mentioned in “Towards a Sustainable Seattle” and it is through these groups that many strategies ought to be implemented.

Branding

Branding is a new and growing way of marketing and promoting places. Many



cities throughout the United States and internationally have undertaken these efforts in the last decade. The process involves marketing an image of a district or city in order to boost economic development and change negative perceptions of a place that is undergoing or has been revitalized (Urban Nexus, 2004). Branding encourages economic development by luring new tourists, residents and businesses to an area that has potentially been lacking in these respects before.

The challenges in branding involve incorporating current residents' neighborhood identity and balancing the needs of various stakeholders. There is often a conflict between the branded image, which is how outsiders perceive the place, and the community identity, which reflects how those who live in a space see it. Often, a completely new identity is marketed which ignores the identity of existing residents and leads to dissatisfaction. With adequate participation by existing residents, a community may overcome this difficulty. Participation strategies include focus groups, questionnaires to business owners, and public meetings. Failing to include the public and the existing community identity can result in an altered identity that reflects the chosen image, rather than preserving existing character.

Some cities recognize that “strong brands are built on a foundation of truth” (City of Toronto). Not only is it important to consider the existing neighborhood identity in forming an image for branding, but neighborhood issues and values must be accounted for as well. Marketing of a district must be consistent with the core brand chosen, “which is not the tag line and logo, it’s the ... core values” (Action Swift Current).

Many cities take a “one brand, many messages approach” to reconcile the divergent interests of different stakeholders (Bennett and Savani). The goal here is to have different messages for different interest groups which helps avoid tension, since one group’s advancement often means another group’s loss. One problem with this approach is that the district loses the advantage of integrated marketing, which ensures that the public receives a unified message about the neighborhood.

The major steps to branding are straightforward: name creation, logo design, market research, internal communications, external public relations and advertising (Bennett and Savani, page 5). To disseminate the new brand, methods include: press releases, brochures, websites, mailings, advertisings, and word-of-mouth (Bennett and Savani, page 11). Other options to disseminate a brand include hosting events, installing banners and adding ornamentation to street furniture. Many cities rely on paid consultants to do this work for them, but others accomplish not only the research but also logo and tag line design and implementation strategies through

public and private partnerships.

History

South Lake Union is a place of rich and unique history in the City of Seattle. Before any claims were staked, Native Americans used the southern portion of the lake frequently for catching fowl and other food. The grounds at Seattle Center were used for yearly potlatches. In 1853, much of that changed, as David Denny laid a claim to the land at the southern end of the lake encompassing present day Seattle Center. He proceeded to clear much of the land and would eventually open one of the busiest mills on Lake Union.

The original railroad track was laid in 1872 from Lake Union to a coal dock on Pike Street. It was abandoned only five years later but was used again in 1890 for the original streetcar line. This line went down Westlake Avenue. Transportation of coal and lumber was key to the growth of industry in SLU. The area was home to laundries, mills, lumber yards, furniture manufacturers and brickyards in its early years. During this time, the Cascade neighborhood grew as a mix of immigrants of all classes.

Lake Union took the brunt of most negative industrial impacts. By 1912, dust from saw mills had filled in the southern-most portion so much so that the southern shore line moved north one and a half blocks. The Great Seattle Fire of 1889 led to immense dumping of untreated sewage into the lake as well. By 1914, it was used to power the Seattle City Light Lake Union Steam Plant.

Both World Wars led to further industrialization of the area. Warehouse buildings became common (often replacing aging residential structures), and auto-oriented businesses and showrooms emerged. The Seattle Times moved into the area as well. The lake was used heavily in the war effort for ship-building and new Naval training facilities



Historic warehouse building

opened at the south end in 1941.

As auto-domination progressed, SLU and the Cascade neighborhood became increasingly overlooked. By 1960, Cascade was deemed a “blighted” neighborhood, largely due to having its main connections to neighboring districts cut off by freeway building; I-5 destroyed its connection to Capitol Hill and Aurora isolates it on the other side. Mercer was created in 1969 as a temporary “one-way route to the freeway,” but has served as such ever since. This continues to encourage people to drive through SLU but not stop there.

Recent plans for the area have tended to result in neighborhood uproar. The Seattle Commons plan for a large downtown park failed twice in the mid-1990s. Solutions to the “Mercer Mess” have had their fair share of supporters and detractors but one has never been agreed upon. The Cascade Neighborhood, though small, has had a resurgence in active residents resulting in the Neighborhood Plan of 1998.

From this brief overview of SLU history, major themes and issues can be identified. Issues include connectivity, revitalization and environmental care. Themes that are applicable to the community identity/branding process are industry, maritime and diversity.



Historic sidewalk mosaics

Existing Conditions

Field work in SLU identified main landmarks, themes, and neighborhood assets. This field work was performed with the four components of identity in mind as defined by “Towards a Sustainable Seattle.” These four elements include the area’s history, natural features, cultures, and sources of pride. The field work was supplemented with a review of last quarter’s research findings.

A variety of assets are found within the borders of SLU. These include a rich assortment of maritime-related businesses, cruise and seaplane travel opportunities, hotels with conference centers that could be used for biotech and other

area industries, art galleries, funky and functional local businesses, and historical elements in the area’s architecture and built environment.

Research focused on locating neighborhood themes and identifiers, significant architecture, important nodes of activity, street furniture, and public art. Thematic elements are found throughout a neighborhood without actually using the name South Lake Union. Seattle examples would include the Chinatown/International District dragons or Pioneer Square’s historic lamp posts. Other examples include special sidewalk material and artwork on buildings or bus stops (Photos by Catherine McCoy, 2005).



Children's art outside of a SLU private school

Within SLU, several themes were observed. Local business clusters can be important elements of a neighborhood identity. Noted clusters included furniture stores and warehouses, wholesale florists, art galleries, and maritime businesses. The furniture cluster seemed especially dominant within South Lake Union, which

sparked an idea for a flea market to add to the neighborhood identity and to appeal to tourists. Other thematic elements included

historical sidewalk tiles, historic buildings and murals, and the industrial character of the neighborhood. Biotechnology may be a theme of the future for the area if more of these businesses are attracted to the area.



Street furniture as landmark





SLU business that uses the location in its name

Neighborhood identifiers can be businesses, banners, and other elements that use South Lake Union in their name. By using the neighborhood name in this way, it helps visitors know where they are and creates a better sense of identity for the residents. SLU only had a few examples of neighborhood identifiers. However, this is a relatively easy element to add into SLU as new businesses and events appear within its boundaries. The South Lake Union name can be added to street furniture as well.



The Armory—a SLU landmark



Historic building with SLU character

pedestrian, but new design guidelines address this issue. Besides the historic buildings, some places are highly visible, such as the Cascade area with its sustainable feel, and eclectic businesses like Jones Soda, Taco del Mar and Kapow! Coffee. Others include galleries such as Consolidated Works and COCA, and

Architectural elements can include historic or unique buildings as well as streetscape design and landmarks. In SLU, there are many great buildings that made the neighborhood stand out from others close-by. The overall streetscape design needs improvements to re-orient roads to the



Historic laundry in SLU



Incorporating an historic façade in a new development

new developments that hold biotech firms, apartments, and retail. Since the neighborhood plan states that the residents would like SLU to retain its texture and mixed-use variety, it is important to recognize the value of the built environment already in place, and to create new buildings that fit into the neighborhood context.



Seattle Times—architectural landmark

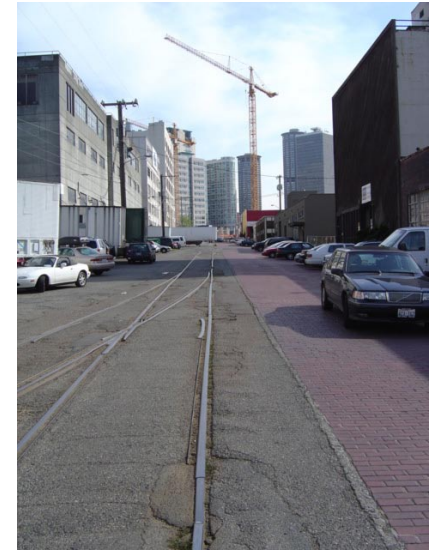


Streetscape details add to neighborhood identity



Rotating signs are landmarks that add a funky feel

Nodes of activity and transportation are important areas for neighborhood identity. These can be either inside the neighborhood boundary, or merely entrances to South Lake Union. The Urban Form team of Winter Quarter 2004-2005 found a variety of nodes within the neighborhood, as noted on the map of entrances. Important entrances include where Fairview, Eastlake, and Westlake enter SLU from the east. Once the streetcar line begins its route, Terry Avenue will be another significant entry. Nodes within South Lake Union include where Broad Street meets Valley Street, where Fairview Avenue meets Valley Street, where Fairview meets Mercer, and both Denny and Cascade Parks.

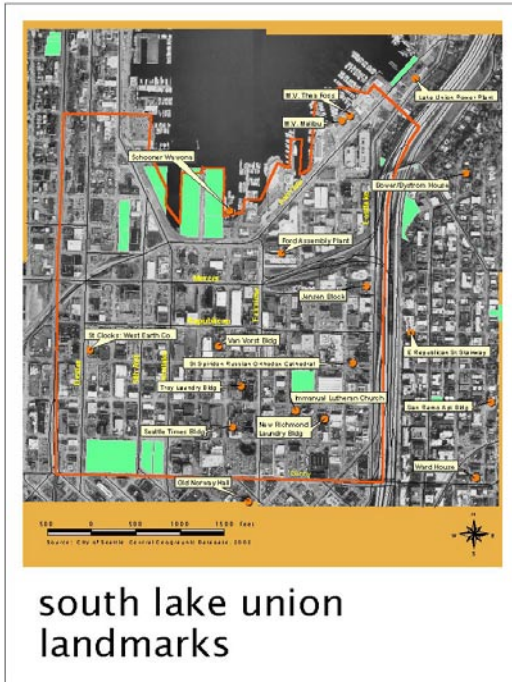


Terry Avenue will be much different with a streetcar



Cars enter SLU on Westlake





GIS map of South Lake Union's landmarks supplemented fieldwork. Important landmarks include: the Schooner Wawona, Ford Assembly plant, historic St. Spiridon's Russian Orthodox Church, and laundry buildings from South Lake Union's industrial past (Catherine McCoy, 2005). The Center for Wooden Boats is full of great information about South Lake Union's maritime history, which could make it a focal point for resident identity and tourism. Zymogenetics, a biotech firm, now occupies the old City Light Steam Plant, another landmark,

and Shurgard has adaptively reused the historic Ford Plant.

Focus Group

Community stakeholders were invited to participate in a formal discussion to further the research conducted on the community. The purpose of the focus group was to get a feel for the community identity themes in SLU from business owners, developers, residents, and non-profit members. Stakeholders present were two residents, including a member of Cascade Neighborhood Council, a member from the Center for Wooden Boats, a member of a local church, a local business owner, a board member from the Consolidated Works art gallery, and a representative from Vulcan.

Participants identified community assets that evoke pride and that can be highlighted in the neighborhood. A few participants mentioned the Center for Wooden Boats and, more generally, the nautical feel of SLU. Others pointed out the cluster of furniture, antique, and interior decorating stores in the area.

The restaurants on Eastlake were mentioned, specifically Chandler's Cove with their whiskey crab soup. A couple of participants also brought up the Cascade neighborhood, with its emphasis on sustainability, and organizations such as the Cascade Peoples Center. The industrial feel of the neighborhood was both a safety concern for one participant and a valuable asset for another. Most participants saw the changes occurring in the neighborhood as a good opportunity, and felt that SLU was poised to become a stopping point, rather than a place to go through.

The image that comes to mind when one thinks of a neighborhood is an important aspect of community identity, thus participants identified major themes and images present in SLU. A theme that emerged was the fragmented nature of the neighborhood. Many participants mentioned that pedestrian accessibility was difficult and that the different sections of the neighborhood needed to be better connected. Also noted was that the proposed changes would help meet these needs, and that SLU would turn from a commuter environment to a pedestrian-oriented environment. The eclectic feel of the neighborhood was a positive image mentioned. The historic buildings were also seen as an asset. The larger Seattle community, as mentioned by focus group participants, perceives SLU as a non-neighborhood. For example, Carl, the owner of Antique Liquidators, commented, "South Lake Union is one of Seattle's best-kept secrets". Finally, Lake Union was seen as an important image for the neighborhood.

Participants then identified elements of SLU that differentiate it from other Seattle neighborhoods. The lake was seen as a central aspect of SLU's identity. The history of the lake and current lake activities, such as the Kenmore seaplanes were mentioned. The potential for SLU to be a "maritime museum and neighborhood" seemed possible. Using the lake for public transportation, rather than traditional dependence upon the highway, was also noted. Finally, access to the lake was seen as a barrier—one participant mentioned that he had never been in the Armory before, perhaps because of the difficulty crossing Valley and Mercer for pedestrians.

Although the neighborhood is fragmented, a community does exist and participants identified ways in which that community functions and how it can grow. All participants brought up the need for various communities in SLU to come together for a common purpose. Malaika, the Cascade Neighborhood Council (CNC) representative, spoke of Vulcan's Alley 24 development project as a good example of developers working with the community in order to preserve the historic character of a building. Events and neighborhood meetings were

also seen as essential to creating community in SLU. Bruce, from a local church, wanted better communication between neighborhood organizations, residents, and businesses in order to form partnerships. The diversity of cultures, incomes, and land use was seen as an important asset in SLU, which spurred the idea of providing space for start-up companies to help encourage local business growth.

Two themes were identified from previous research: sustainability and maritime heritage. Participants recognized these as important themes for SLU, so the focus turned to refining them in order to get a better picture of what was meant. Sustainability was seen as including a variety of aspects—environmental, social, and economic. This more inclusive view of sustainability would consist of looking after local businesses, creating housing for all income levels, designing a quality pedestrian streetscape, adding more open space, and developing more green buildings. SLU was also envisioned as a place to educate others by using the neighborhood as a model of sustainable development.

Maritime heritage was seen as a theme that describes the neighborhood's history. It was mentioned that the history of SLU was as a working lake, and now the neighborhood was changing. An idea to bring houseboats to the neighborhood was seen as an opportunity to create a unique community and to also encourage a more sustainable lifestyle.

In order to have ownership of community identity, it is important to find implementation strategies that the community supports. One participant brought up incorporating the historic buildings into more new developments. To help create a sustainability theme, it was proposed that all buildings in SLU could be built “green”. A few stakeholders spoke of the importance of community events and using the parks and the Armory for more neighborhood activities. Events were seen as a great method for creating more neighborhood partnerships. Pedestrian access is limited and therefore seen as a barrier, and the need to alter the existing street network to slow down traffic and encourage more walking was identified. A farmer's market concept was brought up, and quickly the idea for a neighborhood garage sale became popular, perhaps by using empty space in commercial buildings. It was seen as a great way to pull the community together from within SLU, but also to encourage more people from outside the neighborhood to come see what the community has to offer.

Overall, participants agreed that the maritime heritage and sustainability themes were key and through this process a better definition of these themes

emerged. These stakeholders seemed positive regarding changes occurring in the neighborhood. All appeared excited for SLU to grow into a mixed-use, mixed-income community that was attractive to residents, workers, and tourists.

Planned Actions

There are several proposed actions for the SLU neighborhood. In order to determine what identity SLU should have, it is necessary to include these planned actions as well as look to the history and existing conditions of the neighborhood. These planned actions are also key to identifying appropriate and logical implementation strategies. The SLU neighborhood will be the site of many exciting changes in the years to come. The Mayor's Action Agenda for the neighborhood is summarized below:

- **Build a streetcar:** The city is proposing a streetcar in order to spur development of the SLU neighborhood along its path. This has worked in Portland's Pearl District and is showing signs of success in Tacoma. A streetcar is a clean and efficient way to link SLU with downtown, the new South Lake Union Park, and Denny Triangle. The streetcar would help with the area's traffic congestion by linking jobs and housing within connecting neighborhoods.
- **Attract biotech jobs:** SLU hopes to be a biotech hub, which it plans to encourage through industry collaboration, code amendments, and developing neighborhood amenities sought by such firms. There is already a burgeoning biotech hub in the area, with both private businesses and University research institutions.
- **Create a waterfront park:** The Department of Parks and Recreation is developing the South Lake Union Park, an original piece of the 1903 Olmsted park plan. A waterfront park is listed as a significant goal in the area's neighborhood plan. The park will beautify an area that is currently home to a gravel parking lot. This area has a lot of potential, housing the Center for Wooden Boats and the historic Armory. Once realized, the South Lake Union Park should draw in tourists.
- **Help create a great neighborhood:** In order to create a vibrant neighborhood, the plans are to implement the neighborhood design guidelines, add a variety of housing types, improve transit, create streets and sidewalks that encourage pedestrian activity, incorporate needed



services, and provide more green space. Sustainable building techniques will also be encouraged.

- Improve the Mercer corridor: Instead of SLU being a neighborhood to drive through on your way to Interstate-5, the plan is to reconnect the street grid that has been torn apart by highway construction. Seattle Department of Transportation suggests Mercer Avenue will be changed from a one-way into a two-way street with better landscaping, a median, and sidewalks to encourage pedestrian activity. Valley Street would become a pedestrian-oriented roadway that could be easily crossed and traveled on to allow for better accessibility to the South Lake Union Park.
- Upgrade essential utilities to provide for growth: Aging utilities must be upgraded in order to handle the growth planned for SLU. Sustainable techniques will be encouraged wherever possible.
- Promote sustainable development practices: The City of Seattle is looking at ways to encourage sustainability through green building methods, rainwater management, efficient mass transit, pedestrian-friendly streets, green space provision, and through environmentally-aware utility systems.

Recommendations

Overall Organizational Recommendations

South Lake Union could benefit from a broader organizational structure to implement strategies pertaining to community identity. The following recommendations include such a structure as well as potential implementation strategies. It is important to note that these strategies are general. Once a particular community identity is chosen and organizations prepare to take the lead in implementing strategies for the area, creative and specific strategies may be identified that are well suited to SLU. Beyond implementing strategies, leading organizations should monitor and evaluate the effectiveness of efforts to brand and enhance community identity, and identify new trends in the neighborhood that might provide future identities or methods.

Towards this end, the existing neighborhood organization, SLUFAN, should be supplemented with a business improvement district (BID) that can focus on economic development and marketing. While the BID will focus on commercial

interests, SLUFAN would be inclusive of the entire SLU community. In addition to these organizations, the City of Seattle could staff a Neighborhood Service Center in the area to provide convenience to residents and a public face for the city in the area.

These two organizations should consider partnering to market SLU in order to implement a branding strategy that addresses both resident and business interests. Both SLUFAN and the BID should be primarily responsible for implementing any particular strategies in the community. While some strategies can be implemented by the City of Seattle or other outside agencies, many ought to be the work of the BID or SLUFAN. It is important that efforts to establish and enhance community identity, as well as brand the area, be conducted by those within the SLU neighborhood so that they have ownership of the result. Extensive public engagement must be considered. This can follow three avenues: “dialogue” (providing open forums, both formal and informal to discuss identity issues), “discovery” (encouraging citizens to participate in activities and events and then spread the word), and “development” (creating projects that enhance the area’s physical and economic environment) (Detroit, Michigan).

Strategies that could potentially be implemented by the BID, SLUFAN and other groups are identified—they have been prioritized (Phases I, II, III) based on their importance and relative expenses have been assigned. Phase I strategies for the BID and SLUFAN are described in detail below, while other strategies may be found in the attached matrix.

Neighborhood Organization and Strategies

Currently, SLUFAN acts as the major community organization in the neighborhood. Their mission is to support or engage in activities that fulfill the aims of the neighborhood plan and serve as the steward of that plan “based on inclusiveness [and] respecting every community voice [and] the neighborhood’s history and character” (SLUFAN website). Their involvement in implementing the plan includes work on policy and development issues, promoting community involvement and educating and communicating with the community on issues of all kinds. SLUFAN’s board is informed by the work of various committees, including a planning committee.

As demographic changes and population growth occur in the SLU neighborhood, SLUFAN will undoubtedly grow as well. An expansion of the current organization



to encompass members of a new residential community will allow for that new polity to be represented. This will make sure that the organization is reflective of all the area's stakeholders. By ensuring that SLUFAN is as representative of the community as possible, the neighborhood will be more easily unified and able to best determine their community identity.

In the future, it is hoped that a community center will be located in SLU and such a center could be operated by SLUFAN. A community center is of great importance as it is often a major focus of a neighborhood. A center could allow for accommodation of large events and include amenities for residents that may not be available elsewhere such as computer workstations. At a minimum some space could be provided for workshops to take place. Since the neighborhood is currently without a neighborhood-based school, the idea would be to have a community center serve as a school for everyone—to promote “lifelong learning.” The center could be funded through a matching grant from the Department of Neighborhoods and could be placed within an historic structure to root the neighborhood's organizations and events in SLU history. Alternatively, the Armory, which is already equipped with many of these amenities, could serve as the community center once connections within SLU are improved.

SLUFAN currently provides many resources to the neighborhood, including a helpful website with links to other organizations, a calendar of community events and an online community directory. Additional strategies for providing resources and building an active community are delineated below, and strategies that could be implemented at a later date can be found in the attached matrix.

- **Website Design:** Once branding efforts are complete, the SLUFAN website could feature the chosen tag line and logo. An extensive search of businesses and organizations in the area with websites could be done to ensure that the website links page is as comprehensive as possible—this makes it simpler for visitors and newcomers to the area. New features could include an interactive trip planner and maps and guides that can be printed.
- **Arts & Cultural Development Objectives:** Arts and culture are important elements in creating neighborhood identity and could be incorporated in the neighborhood plan, of which SLUFAN is the steward.
- **Community Newsletter:** A monthly newsletter to the immediate and

greater community can serve to keep stakeholders informed and better enable people to be active in the community. The newsletter could feature articles about businesses and the area's history as well as provide a calendar of upcoming events.

- **Community Resource Directory:** SLUFAN could create a printed version of its online Community Directory. Providing it in print to new and existing businesses and residents may make it more accessible for them.
- **Plant-a-thons:** Through landscape improvements, plant-a-thons can encourage community involvement, lower maintenance costs, and beautify the streetscape. Maintenance could be done through resident and business volunteers or through the BID's Homeless Outreach Program (see page 16).
- **Spring Clean Day:** Residents and business owners could participate in an annual effort to clean up their neighborhood. This could encourage social networking as well as a sense of ownership of the area.

Business Improvement District and Strategies

In order to differentiate SLU retail from that of nearby neighborhoods, an integrated marketing strategy could provide a unified image of the area's businesses. This could best be accomplished through the work of a business improvement district (BID). A BID is a non-profit organization typically financed through a property or retail tax. It is generally charged with maintenance, management and promotion of the commercial district and serves to supplement other city services. A BID is suggested over a Chamber of Commerce as the latter has a greater focus on membership benefits and networking, whereas the BID has a distinct interest in the economic development of the area. Such an organization could be housed in the same location as the tourist center.

There are a number of strategies that can be implemented by a BID in SLU. Those strategies of most priority are largely physical improvements to the area that will help make the commercial district more attractive. Others involve more direct business approaches to economic development. As the commercial district becomes more developed, other strategies can be implemented to further encourage and direct spending to the SLU neighborhood. Later strategies for the BID are described in the appended matrix, some of the first activities to be undertaken by this organization could possibly include:



- Streetscape/sidewalk design: A pedestrian friendly and human-scaled environment could be considered. Elements might include lighting, awnings, ground floor activity, attractive and navigable sidewalks, uniform street furniture and public art.
- Signage: User-friendly signage can be added to the area to aid in wayfinding and establish neighborhood identity. Wayfinding signs could include directional elements and information about activities on each block. Signs focused on neighborhood identity could include history and information on local landmarks.
- Storefront Improvements: To aid in the creation of a pedestrian friendly environment, storefronts could undergo restoration of exterior finishes and materials and improved signage. This effort could be made possible through a matching grant or revolving loan program.
- Business Competition: A competition could be held for the most innovative business concept to be financed and placed in SLU. The chosen business's expenses could be covered for an established time frame.
- Incubator: To encourage new small business growth in SLU, an incubator could provide subsidized retail space and technical assistance. When ready to move into market-rate storefronts, the BID could provide location assistance within the neighborhood.
- Homeless Outreach Program: A staff person of the BID could provide resources and assistance to the area's homeless population. Aid in locating shelters or employment could be included. Some participants could be employed in the area working on streetscape or landscape maintenance.
- Tag line and Logo: This is an increasingly popular way to market a neighborhood. Although its major purpose may be for economic development, the logo and tag line chosen are usually reflective of community values. This can be used on all advertising and community products or merchandise.

Neighborhood Service Center

In addition to the above organizations, the City of Seattle could consider establishing

a Neighborhood Service Center in the area. The purpose of Neighborhood Service Centers is to “link City government to Seattle’s neighborhoods” (City of Seattle, Department of Neighborhoods). Some of the services provided at such Service Centers include the ability to pay bills, networking help for community groups, referrals to local human services and facilitated communication between citizens and the city. Although the neighborhood is just outside of Downtown, and the center of City government, establishing such a Service Center will give the city a face in the neighborhood and reflect the interest and support the city is providing the area. Further, the Service Center could fill a vacant storefront in an existing or newly developed building, adding to the streetscape and pedestrian environment.

Sustainability

In SLU, there is a growing interest in sustainable design. The Cascade neighborhood has long had an emphasis on sustainability. Vulcan and the City of Seattle also are both committed to sustainable techniques where possible. There are numerous ways to implement sustainability as a theme throughout the neighborhood. Physical strategies could include urban design guidelines, streetscape design, and signage. Incentives could encourage more green building within SLU. Signage could have a logo with a sustainable icon and tagline. Sidewalks could also have the logo inset in the concrete. Some streetscapes could also be designed with pervious surfaces or other green features. Also, the SLU streetcar could have the logo and even include information about sustainable sites to lure tourists to the area. To combine sustainability with a maritime theme, public transportation could expand to include ferries to carry passengers throughout greater Seattle.

Once there is a critical mass of sustainable developments, events could highlight the area's sustainable features. A walking tour could be created to draw attention to the green buildings and educate visitors about sustainability. A tour of the inside of the buildings could be held to promote sustainable living, as evidenced in Dallas, Texas, with the “Cool House Tour.” Plant-a-thons might be an opportunity to create more green spaces within SLU and increase the community's sense of identity.

Other activities could include an incubator that would be used to attract new sustainable businesses to the neighborhood. Public art, such as mural walls featuring sustainable themes, would be a good way to feature local artists, beautify the neighborhood, and add to the unique character of SLU. Finally, workshops



about issues relating to sustainability could be held at the community facility in order to encourage both SLU residents and the larger Seattle community to participate in the sustainable lifestyle possible within the neighborhood.

Maritime Heritage

The maritime heritage theme already exists to some extent in SLU; it could, however, be strengthened. Ideally, this theme would be strongest near the lakeshore and dissipate as one moves south through the community. In some ways, it can tie into the sustainability theme that will be most strong in the southern portions of the neighborhood—wooden boats and those that are moved by the power of the wind are not only both eco-friendly but also intriguing.

Some of the ways to strengthen the theme of maritime heritage might include physical strategies such as banners featuring nautical emblems (which could be a part of the community's logo), murals of historic ships or

activities that occurred on Lake Union, or pieces of historic ships or industry tools featured throughout the area as public art.

Currently, the Center for Wooden Boats hosts live music events throughout the year. These, in conjunction with the Summer Nights at South Lake Union concerts, held at South Lake Union Park, will bring many visitors to the area and specifically right to the lake, giving them an opportunity to learn more about the unique

history of the community. The Wooden Boat Festival currently capitalizes on this history and specifically shares this with those that participate in the event. Other events could include rotating maritime exhibits at the museum at the Center for Wooden Boats, woodcarving events that teach the art of canoe making, and movie nights or workshops at the Armory or the Center for Wooden Boats educating the public on the former Naval Base and the ships produced there and around the area.

Finally, sites around SLU could be featured on a regional Maritime History Trail that stretches around the greater Puget Sound area. Such a trail exists along the coast of New Jersey and is an effort to preserve maritime heritage in the region. The regional trail could include sites such as museums, light houses, state parks, marinas, monuments, historic sites and scenic overlooks. One group that could be responsible for this undertaking is the Task Force on Maritime Heritage sponsored by 4Culture (formerly the King County Office of Cultural Resources).



The Center for Wooden Boats is home to the Wawona and Swiftsure



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- Amsterdam, Netherlands
<www.amsterdam.nl>
- Austin, Texas
<http://www.ci.austin.tx.us/greenbuilder/mig_4.htm>
- Ballard Neighborhood, Seattle, Washington
<<http://www.cityofseattle.net/neighborhoods/npi/plans/chill/>>
- Belltown Neighborhood, Seattle, Washington
<<http://www.cityofseattle.net/neighborhoods/npi/plans/belltown/>>
- Birmingham, England
<<http://www.beinbirmingham.com>>
- Boston, Massachusetts
<<http://www.mainstreet.org/MediaLibrary/BostonMainStreetsAnnualRpt2003.pdf>>
<http://www.cityofboston.gov/dnd/OBD/G_ReStore_Boston.asp>
<http://www.cityofboston.gov/dnd/OBD/G_Enterprise_Initiative.asp>
- Burlington, Canada
<<http://cms.burlington.ca/English/Background-on-Branding.html>>



Colorado Springs, Colorado

<http://www.mainstreet.org/content.aspx?page=5068§ion=11>

Columbia City Neighborhood, Seattle, Washington

<http://www.cityofseattle.net/neighborhoods/npi/plans/colcity/>

Columbus, Ohio

<http://www.shorthnorth.com/CoverStoryJan03.html>

<http://www.shorthnorth.com/Murals.html>

Commercial Core Neighborhood, Seattle, Washington

<http://www.cityofseattle.net/neighborhoods/npi/plans/ccore/>

Denny Triangle Neighborhood, Seattle, Washington

<http://www.cityofseattle.net/neighborhoods/npi/plans/denny/>

Detroit, Michigan

<http://www.createdetroit.com/index.php>

<http://www.coolcities.com/cm/attach/E9226032-6743-413D-9F76-2F6A4C6DC5D0/InitialReport.pdf>

Eastlake Neighborhood, Seattle, Washington

<http://www.cityofseattle.net/neighborhoods/npi/plans/elake/>

Encinitas, California

<http://awards.mainstreet.org/content.aspx?page=5130§ion=22>

First Hill Neighborhood, Seattle, Washington

<http://www.cityofseattle.net/neighborhoods/npi/plans/fhill/>

Fremont Neighborhood, Seattle, Washington

<http://www.cityofseattle.net/neighborhoods/npi/plans/fremont/>

Georgetown Neighborhood, Seattle, Washington

<http://www.cityofseattle.net/neighborhoods/npi/plans/gtown/>

Golden Triangle, Washington, D.C.

<http://www.gtbid.com/marketing/>

http://www.gtbid.com/marketing/2005_gtbid_banners.pdf

Tagline: The Place to be in Washington D.C. The purpose of branding this district was to promote neighborhood identity and the downtown core. They implement the brand throughout the Business Improvement District (BID) through banners on all light posts, and with advertisements in magazines and trade journals. The BID highlights different audiences through its different marketing tactics. The trade ads highlight the business climate of the Golden Triangle, whereas the banners and consumer ads focus on all the aspects of the place in order to attract residents and tourists as well as business interests. The banners all feature the same colors and similar images, but highlight different features of the district (retail, restaurants, office buildings).

Green Lake Neighborhood, Seattle, Washington

<http://www.cityofseattle.net/neighborhoods/npi/plans/greenlk/>

International District/China Town Neighborhood, Seattle, Washington

<http://www.cityofseattle.net/neighborhoods/npi/plans/id/>

Issaquah Highlands, Issaquah, Washington

<http://www.ihwebsite.com>

<http://www.issaquahhighlands.com>

Ithaca, New York

<http://www.lightlink.com/hours/ithacahours/home.html>

Kirkland, Washington

<http://www.ci.kirkland.wa.us/depart/pw/transcom/archive/xwalkbas.doc>

Lafayette, Colorado

<http://www.mainstreet.org/content.aspx?page=5081§ion=11>

Leavenworth, Washington

http://www.americancity.org/article.php?id_article=88

Leeds, England

http://www.cipfa.org.uk/regions.ness/news_details.cfm?news_id=245

Lower Downtown (LoDo), Denver, Colorado

<http://www.lodo.org/>



New York City, New York
<<http://www.nyc.gov/sbs>>

<http://www.nymsrg.org/promoting_main_street/index.php>

Newark, New Jersey

<<http://policy.rutgers.edu:16080/cupr/community/organizations/projcomm/wsp/crp3.html>>

New Jersey Coastal Heritage Trail

<<http://www.nps.gov/neje/>>

Pioneer Square Neighborhood, Seattle, Washington

<<http://www.cityofseattle.net/neighborhoods/npi/plans/psquare/>>

Portland, Oregon

<<http://portland.bizjournals.com/portland/stories/2004/12/06/daily30.html>>

<<http://www.portlandtribune.com/archview.cgi?id=18522>>

<<http://www.portlandtribune.com/pearl/index.html>>

<<http://web1.sockeyeecreative.com/index.cfm/fuseaction/identity./id/21/CFID/31169/CFTOKEN/44944325/>>

<http://www.peninsulacdc.org/ap_doc.html>

Queen Anne Neighborhood, Seattle, Washington

<<http://www.cityofseattle.net/neighborhoods/npi/plans/qa/>>

Roosevelt Neighborhood, Seattle, Washington

<<http://www.ci.seattle.wa.us/neighborhoods/npi/plans/rosvlt/Section1.pdf>>

San Diego, California

<<http://www.sandiegodowntown.org/index.cfm/fuseaction/res.featuredCondominium>>

<http://www.sandiegobusiness.org/pdf/EDC_AR03.pdf>

<<http://www.sandiegobusiness.org/aboutedc.asp>>

Tagline: Simplify your life...live downtown. Residential developers formed the first marketing alliance of its kind in the United States, the Downtown Residential Marketing Alliance (DRMA). Now instead of competing, the developers can share money and ideas and collaboratively market San Diego's revitalizing downtown. The Downtown San Diego Partnership heads their alliance. Developers have really liked this, as it gives their suburban counterparts more competition because

they are now marketing in the same fashion. Besides developing their tag line, they also hold events. One example is their "Downtown by Design", which drew over 1,000 people for tours of private homes over two days.

<http://www.sandiegobusiness.org/pdf/EDC_AR03.pdf>

<<http://www.sandiegobusiness.org/aboutedc.asp>>

Tagline: Technology's Perfect Climate. The San Diego Regional Economic Development Corporation (EDC) is a non-profit organization funded largely by the City of San Diego to market the city as a high-tech and biotech hub.

Sheffield, England

<<http://www.sheffield.gov.uk/home-page>>

Swift Current, Canada

<<http://www.actionswiftcurrent.com/brand.html>>

Toronto, Canada

<<http://www.city.toronto.on.ca/branding/>>

A very strong example of the public involvement process in branding. Branding project is a partnership of City of Toronto, Tourism Toronto, Ontario Ministry of Tourism and Recreation and the Toront03 Alliance. The partnership spent \$1 million on research and development and expects to spend another \$3 million on the rest. They first created a Branding Advisory Committee made up of business industry and community leaders. This group spearheaded a seven-week public engagement campaign during which they met with over 200 stakeholders. The "We Are Toronto" campaign posed seven questions over those seven weeks to the public and they received over 4500 answers.

West Edge, Seattle, Washington

<<http://web1.sockeyeecreative.com/index.cfm/fuseaction/identity./id/21/CFID/31169/CFTOKEN/44944325/>>

Interview with Kyle Vixie, Marketing Manager for the Downtown Seattle Association: The West Edge branding process was initiated in 2001 by area businesses, in consultation with Tip Top Consultants, in order to help differentiate their stores from the downtown retail core and create a brand for the area. Community surveys revealed the West Edge was the favorite brand.

Most of the area's businesses recognized the benefit of joint marketing. The Downtown Seattle Association (DSA) allocates \$35,000 per year for marketing efforts within the downtown neighborhoods. The initial branding effort cost \$60,000. This included new signage, a walking tour guide and Plexiglas holder,



window stickers, information sheets, and welcome bags for businesses. They also painted a mural on 1st and Seneca.

To Kyle, the most important thing about place branding is to involve the community. If they do not have ownership of the brand, it will never succeed. The branding effort must be holistic. It is not good enough to come up with a logo and tagline; you must also address any potential barriers such as crime or physical degradation. Kyle sums this up with the “three p’s” to succeed in branding: people, process, and projects.

His suggestions for branding a neighborhood: start by creating a neighborhood committee with 10-15 stakeholders. Also include a staff person from an independent agency to be focused on the process. Their work should focus on questions such as the barriers that could prevent community ownership of the brand, neighborhood assets already in place, and the overall perception of the area. The community must buy into the message, values, and future representation in addition to the logo or tagline. Look for funding from multiple sources, including grants, sponsorships, and the Metropolitan Improvement District fund through DSA. The trick with funding is to have multiple stakeholders so that it seems legitimate.

Valley Neighborhood, East Orange, New Jersey

<<http://www.handsinc.org/Visions%20and%20Goals%202.htm#Goal%20#1%20-%20Strengthen%20neighborhood%20identity>>



Appendix A

Matrix of Potential Community Identity/Branding Strategies



Strategy	Description	Type	Proposed Lead	Priority	Funding	Case Study
Advertising	Different messages can be created for different target audiences (business, biotech, residents, sustainability, parks, etc.). This should be a regional effort extending throughout the Puget Sound area and perhaps into other parts of the state or the Cascadia region.	Marketing	BID	1	\$\$ or \$\$\$ depending on coverage	
Homeless outreach program	Services and resources are provided for the local homeless population focusing on locating shelter and employment. Employment could also be offered at this location perhaps by providing maintenance of buildings and landscaping in the neighborhood.	Activity	BID	1	\$\$\$	Golden Triangle, DC
Incubator	An incubator provides subsidized retail space and technical assistance to new and growing small businesses. When participants are able to open up their own location, help is offered in locating the business in an area storefront. These efforts are often interesting stories that make for good media pieces, and therefore, good marketing for the district.	Activity	BID	1	\$\$\$\$ if property donated	NYC, NY
Signage	User-friendly signage includes wayfinding, informational and street signage. Examples include banners on light poles, illuminated street signs, or sign posts in each block that provide information regarding block activities and addresses, landmarks and historical information.	Physical	BID	1	\$\$\$	West Edge; Chinatown; Ballard; NYC, NY
Storefront improvements	Improvements to existing storefronts add to streetscape improvements and enhance pedestrian experiences; these might include restoration of exterior finishes or materials, new signage, or installation of awnings. Financing can be provided through matching loans or grants, or a revolving loan program.	Physical	BID	1	\$\$\$\$	Boston, MA; Newark, NJ
Streetscape/ Sidewalk Design	“Streetscape elements should reflect and enhance” the identity of an area (NYC Fashion Center BID). Pedestrian enhancement plans make sure walkers are taken care of and increase pedestrian flows for area businesses. Examples of improved streetscape elements include mosaicked sidewalks or other public art, uniform newspaper racks, human scaled lighting and attractive lightposts, sound street furniture, adequate trash receptacles, flower beds or planters and awnings.	Physical	BID	1	\$\$\$\$	Pioneer Square; Chinatown; Belltown; NYC, NY Boston, MA; Encinitas, CA



Strategy	Description	Type	Proposed Lead	Priority	Funding	Case Study
Tag line & logo	These elements are key to branding efforts. Logos and tag lines should be reflective of community values, and should be inventive and intriguing enough to spur the interest of outsiders. Both should be incorporated on neighborhood and business products such as visitors' guides, paid advertising, signage, websites, and newsletters. Merchandise can be produced such as T-shirts and coffee mugs.	Marketing	BID	1	\$\$	Swift Current, Canada; Birmingham, UK; Issaquah Highlands; Denver, CO
Business Competition	By submitting creative business proposals, entrepreneurs can compete with one another to be a new small business enterprise in South Lake Union. Resources for such things as financial forecasting and human resources assistance would be provided and the costs of start-up could be covered by the leading agency.	Activity Event	BID	1	\$\$\$\$\$	Boston, MA
Website design	A unified website for the neighborhood is crucial. It should not only display the logo and slogan chosen, but also provide information on all aspects of South Lake Union. Features to include may be an interactive trip planner, calendar of community events, maps and guides that can be printed, a virtual walking tour of the neighborhood and a page for businesses with incentives to locate in the neighborhood. Such a site should also provide links to other organizations that exist in South Lake Union. These simple additions could supplement the current SLUFAN website.	Marketing	BID or SLUFAN	1	\$\$	Eastlake; Los Angeles, CA; Akron, OH; Denver, CO
Advertising	The existing Center for Wooden Boats currently lacks effective advertising. The current musical and special events held at CWB could be marketed better. An investment in advertising could lead to expanded interest in the Center which may result in more funding and expanded special events.	Marketing	Center for Wooden Boats	1	\$\$	Leavenworth, WA; Golden Triangle, DC
Historic Preservation Corridor	Historic preservation of key and historically significant buildings along Terry, Westlake, Boren and Fairview could create a wide corridor through which much community identity and history could be viewed. Riding on the streetcar (an old form of transportation) from downtown into South Lake Union, the transition from old to new, from previous industries to biotech, can be seen.	Physical	City DPD	1		Pioneer Square



Strategy	Description	Type	Proposed Lead	Priority	Funding	Case Study
Urban Design guidelines	Guidelines can help a neighborhood maintain or enhance its identity or brand. A balancing act must be achieved between preserving the area's history and encouraging new development. Some changes could be made to the design guidelines for South Lake Union. For instance, encouraging storefronts or restaurants to incorporate warehouse garage doors would promote the industrial history of the area. The guidelines should also work to promote pedestrian usage of the area through encouraging human scale design and discouraging drive-through uses.	Physical	City DPD	1	\$	Chinatown; Pioneer Square; Denver, CO
Flags at crosswalks	To aid in the safety of crossing some of the more dangerous streets in South Lake Union, orange flags could be provided at intersections. These could also incorporate the tagline and logo of the neighborhood.	Activity	BID or City of Seattle	1	\$	Kirkland, WA
Parks and Open Space	Parks within the area could be modified to reflect the identity. This could be as simple as adding themed elements such as sculptures to parks. Open space is crucial to this community and the Denny Park is in need of an upgrade. A University studio could aid in the redesign of this park, providing new ideas for the city and a better environment for residents.	Physical	City Parks & Rec	1	\$\$	Chinatown; Pioneer Square; Chicago, IL
Farmer's Market	Many neighborhoods in the city host Farmer's Markets weekly during the summer months. South Lake Union could be one of these.	Event	Neighborhood Farmers Market Alliance	1		
Arts & Cultural Development Objectives	Arts and cultural development are significant in the creation of neighborhood identity. For this reason, it is important to have them as objectives in the neighborhood plan.		SLUFAN	1	\$	Creative City (Canadian document)
Community newsletter	Many communities use a weekly or monthly newsletter to update community members on community developments, changes and upcoming events. A regular column could be devoted to neighborhood history.	Marketing	SLUFAN	1	\$	Eastlake; Issaquah Highlands; Boston, MA
Plant-a-thons	Encourage stewardship and a greater sense of community through providing participating businesses with a watering can to water the street trees or other landscaping in front of their store. This cuts down on costs by engaging the community in plant-a-thons. Free training could be provided for those residents that wish to donate their hours to plant maintenance as well.	Event Physical	SLUFAN	1	\$\$	



Strategy	Description	Type	Proposed Lead	Priority	Funding	Case Study
Spring Clean Day	An annual event in the neighborhood to bring residents and business owners or employees together. Community participating in cleaning up the neighborhood will also instill a sense of ownership in those that participate.	Event	SLUFAN	1	\$	Seattle and Portland neighborhoods
Community Resource Directory	Providing residents and businesses with a directory of services and businesses in the area will help promote the area and encourage those working or living within it to fully utilize those things available in their neighborhood. SLUFAN already provides an online version of this, but printed copies could be available in the area as well.	Marketing	BID and SLUFAN	1	\$	Portland, OR
Intersection repair	In order to reclaim the streets as public space, residents can improve neighborhood intersections by enhancing signage, street painting, providing an information kiosk or establishing a “Share-it-Square.”	Physical	Non-profit or SLUFAN	1		NYC, NY; Leeds, UK; Portland, OR
Maritime History Trail	A regional effort as part of an existing effort to preserve maritime heritage in the region, this trail could include sites such as museums, light houses, state parks, marinas, monuments, historic sites and scenic overlooks in cities throughout the Puget Sound area.	Activity	4Culture	2		NJ
Art of Dessert	Members of the Artist Colony can be paired with local restaurants for an annual event. The event would include art and cooking demonstrations at restaurants, dessert samplings, art showcases at galleries and live music.	Events	Art Nonprofit	2		Encinitas, CA
Artist Colony	A group of local artists who have joined together in a local vacant storefront to work and display their finished pieces. The group could sponsor art themed events in the area, such as Arts Alive or Art of Dessert.	Events	Art Nonprofit	2		Encinitas, CA
Arts Alive	Sponsored by a locally formed artists’ colony, original works of art can be hung as banners in the area to add to the streetscape and to reflect the neighborhood’s history and identity. The banners can later be auctioned as a fundraiser for the Artist Colony or for the Neighborhood Office.	Events	Art Nonprofit	2		Encinitas, CA
Art walk	For a week, visitors and residents can stroll the district’s blocks, appreciate artwork on display and enjoy promotional efforts by area businesses. Vacant storefronts can also have artwork, which markets the available space and supports the local art community. This could be done in conjunction with an Art of Dessert event or the First Thursday program.	Events	BID	2	\$	NYC, NY



Strategy	Description	Type	Proposed Lead	Priority	Funding	Case Study
Buck\$ Stop Here	A one month program encouraging purchases at local stores and promoting the BID. Customers at participating businesses receive raffle tickets for their purchases and a raffle is held at an annual neighborhood meeting.	Event	BID	2	\$	Roxbury, MA
Festivals	The area already attracts some visitors with the annual Wooden Boat Festival. The focus of this festival could be widened to include a street fair and a parade as many other neighborhoods in the city do; bike races could be held to encourage alternative transportation in the area. Other aspects could be added to the Wooden Boat Festival, just as installing flagpoles with nautical banners along Valley Street in conjunction with the festival. The South Lake Union park could be promoted as a perfect spot to watch the 4th of July fireworks across the lake at Gasworks. Vendors and live music could accompany this event.	Events	BID	2	\$\$	Chinatown; Fremont; Wallingford; Capitol Hill; Lafayette, CO; Amsterdam
Live music events	A variety of free musical choices could be provided throughout the summer at the park. This would not be similar to or in competition with "Summer Nights at South Lake Union," which charge admission and are exclusive. Stores can take advantage of the increased traffic flow and offer promotions to lure in customers. Live music could also be performed on pontoons out in Lake Union which would be quite an attraction for the area.	Events	BID	2	\$\$	NYC, NY; Amsterdam
Public art competitions	Public art can be used to spruce up sidewalks, blank walls and even intersections. Competitions can involve local students, galleries, residents or businesses and their employees. Examples include competitions to create murals, street banners or tiles for planter boxes.	Events	BID	2	\$\$	Colorado Springs, CO; Chicago, IL
Restaurant events	"Taste of" events could be held throughout the area in conjunction with the annual Bite of Seattle event. Restaurants in the area could be featured at one location offering samples of their best dishes for one price.	Events	BID	2	\$	NYC, NY; Boston, MA
Tourist Center	A tourist center would be the home base for the BID, would provide information on the area and would employ District Ambassadors to guide tourists. A center like this could attract tourists and offer them information on the area's unique background and landmarks.	Activity	BID	2	\$\$\$ or \$\$\$\$\$ if site not donated or already owned by city	NYC, NY; Golden Triangle, DC



Strategy	Description	Type	Proposed Lead	Priority	Funding	Case Study
TV programs	A series of mini-shows on a participating local news network could run once a week for a month featuring views on different aspects of South Lake Union such as the new image, sustainability, biotech or maritime history.	Events	BID	2	\$\$\$ could be cheaper w/ student projects	Birmingham, UK
Shuttle	Until the streetcar is in place, a shuttle service could be run in conjunction with the Tourist Center. This could provide more access for visitors to the area as well as help develop regular customers for the future streetcar.	Physical	City of Seattle (Streetcar)	2	\$\$	
Mural walls	Can be used to create landmarks, reflect history or beautify an area. There are many ways to include the public in this: have a public art competition for mural design, recruit volunteers to paint or to choose the locations.	Physical	SLUFAN	2	\$\$	Columbus, OH
Share-It-Square	This is an effort to encourage reuse among community members. Unwanted clothing or household goods, as well as other items, can be exchanged among residents by creating a resident-made space for this sharing to occur.	Physical	Non-profit or SLUFAN	2		Portland, OR
Walking Tour	Tours could focus either on sustainability (feature green buildings and other amenities) or showcase the area's history. This could be as simple as providing brochures with information and maps or renting CDs for those who wish to hear about locations on a tour.	Activity	Seattle Historical Society or SLUFAN	2	\$	Wallingford; Pioneer Square; Redmond, WA
1st Thursday Art Walk	The many galleries in South Lake Union could be showcased as participants in this event that already occurs elsewhere in the city. Live music, vendors and extended hours at galleries and businesses would help attract visitors and more businesses.	Activity	Seattle Office of Arts & Cultural Affairs	2		Fremont; Pioneer Square; Portland, OR
Flea Market	To supplement the many furniture and antique shops in the area, a flea market focused on those products could be held quarterly. It should be advertised as a regional attraction.	Event	BID	3		Fremont
Gateways	One way to create gateways to a neighborhood is to install arches at the major entrances. Arches were used once in Seattle to mark the entrances of temporary events, but could easily be used permanently or throughout the main tourist season. Other communities have brought back historic arches as permanent fixtures in their neighborhood.	Physical	BID	3	\$\$\$	Columbus, OH



Strategy	Description	Type	Proposed Lead	Priority	Funding	Case Study
Shoppers card	A program in which consumers pay a small membership fee in return for a discount card and business directory of participating businesses in the area. This could be done in conjunction with a holiday shopping program to get people moving and buying in the BID.	Activity	BID	3	\$	Boston, MA
SLU Dollars	Similar to the efforts of small towns to encourage purchases within the district, gift cards could be produced that are valid at any participating business in South Lake Union.	Activity	BID	3	\$	Ithaca, NY
Rotating maritime exhibits	Changing exhibits or seminars at the Center for Wooden Boats may increase foot traffic and visitors to the area.	Events	Center for Wooden Boats	3	\$\$	Amsterdam
Woodcarving mural project	Wood carving of murals or small boats at the Center for Wooden Boats not only provides a chance for community members to come together, it could be a regional attraction and the resulting art could be featured throughout the neighborhood to improve streetscapes.	Event	Center for Wooden Boats and BID	3	\$\$	New Westminster, Canada
Frequent Events	Frequent events for adults and children of all ages aid in the establishment and enhancement of community. Many should be tailored to the interests of residents. Examples can include movie showings (outdoors in summer) hikes, religious study groups, club meetings, bunco, scrapbooking or poker nights, community garage sales or vendor gift fairs. For the most part, these events should be held at the Community Center to establish its place in the neighborhood.	Events	SLUFAN	3	\$\$	Fremont; Issaquah Highlands
Monthly workshops	Workshops held monthly at the Community Center could attract not only residents but other visitors as well. Seminars focused on sustainability would help promote South Lake Union as a sustainable center.	Events	SLUFAN	3	\$\$	Eastlake; Dallas, TX; Frederick, MD
Neighborhood Tours	Tours of neighborhood residences can be used as fundraisers for the community. Examples include tours focusing on gardens, bungalows, historic buildings, or holiday decorated homes. An urban home tour can be advertised to those not currently living downtown who are interested in knowing what it might be like. A "Cool House Tour" might showcase green homes in the neighborhood and could include features on alternative living habits or organic food.	Events	SLUFAN	3	\$	Wallingford; Pioneer Square; Dallas, TX



Appendix B

Focus Group Participants and Questions



Focus Group Participants and Questions

SLU Focus Group
May 11, 2005

Focus Group participants included representatives from:

Neighborhood residents
Local small business
Cascade Neighborhood Council
Vulcan
The Center for Wooden Boats
Consolidated Works
Local church community

Questions

In SLU, what is your favorite spot to take out-of-town visitors?

What makes SLU different than any other neighborhood in Seattle?

What makes SLU a community?

What themes can you identify in the neighborhood?

How would you see these themes being played out in the neighborhood?



G r e e n D e v e l o p m e n t



Executive Summary

This Document is a discussion of goals and strategies for the City of Seattle to facilitate environmental sustainability in South Lake Union (SLU). The goals and strategies discussed below were identified because of their significant potential impact on SLU's future environmental sustainability, in accord with expressed interests of the City of Seattle and local stakeholders. The focus of the report is on cost-effective neighborhood level strategies that the public sector can implement or encourage within a 10-year horizon.

As a result of research on initiatives underway in other cities and countries, interviews with experienced practitioners and analysis of opportunities for integration and innovation, our group developed a set of development strategies that were categorized by issue area (water, energy, habitat, material use, built environment and education) and prioritized in three levels (priority, secondary and additional strategies). Each of the priority strategies were given expanded discussion regarding their context, potential opportunity, and potential implementation strategies. Additionally each priority strategy is accompanied by links and contact information for further research. This document also includes Appendix A, which is a broad survey of green development strategies that are occurring in other regions and countries.

The following is a summary of the selected priority strategies:

Water

- Improve water efficiency throughout South Lake Union.
- Implement an incentive program to encourage integrated innovative stormwater management techniques throughout South Lake Union.
- Encourage the reuse of stormwater stored in detention tanks.

Energy

- Create a Transit Management Association (TMA) or a coordinated transit demand management program in conjunction with businesses to reduce Single Occupancy Vehicle trips within the neighborhood.
- Institute a ground source heating/cooling project and monitor results to create a case study.

Habitat

- An urban forestry program that emphasizes canopy coverage, big trees and species mix to provide cover for South Lake Union.
- Investigate setting ecological minimum targets for residential, commercial, and public buildings using a green area factor/biotope area factor as a measurement tool.

Material use (waste)

- Create a comprehensive program for the reduction of materials used in building through construction waste recycling and adaptive re-use programs.
- Create on-site composting facility in South Lake Union, preferably in conjunction with the Cascade Pea-patch.

Built environment

- Encourage new structures to have light colored roofs.
- Reduce area required for automobiles.

Education and communication

- Create a sustainable development center.
- Create a neighborhood environmental council.
- Use green development for education and marketing purposes.
- Develop neighborhood sustainability indicators to monitor progress, increase public awareness and foster accountability.

Introduction and Purpose

Opportunities within South Lake Union

With a large area available for redevelopment, South Lake Union provides Seattle with a unique opportunity to integrate multiple sustainability strategies in one central, visible location, creating a “green laboratory” in the heart of the city. For residents and business owners, sustainability can provide a unique community identity and spur economic growth while providing for long-term environmental quality.

The area's specific assets include substantial capacity for redevelopment, prime location, receptive stakeholders, positive socioeconomic trends and a large forward-thinking landowner. SLU sits between the downtown core and the shores of Lake



Union, acting as a buffer between the lake and the more intensive development of the central business district. Seattle's leadership and residents are strongly in favor of sustainable development and the city is already working on a variety of green development strategies and incentives. Vulcan, the site's largest landholder, is aggressively pursuing sustainable practices with its triple bottom line strategies. These factors are converging during a period of emerging sustainable technologies and a steady global interest in the implementation of green development.

SLU also presents Seattle with an opportunity to test sustainability measures before implementing on a citywide scale while educating the public and making these measures visible. As a model development, SLU offers an invaluable opportunity to educate builders and citizens about the importance and virtues of environmental sustainability and presents Seattle with the opportunity to build a working, living, and learning sustainable community.

The importance of integrated systems planning

Systems integration is a key element in the pursuit of sustainability in SLU. Integrating efforts to preserve the environment creates the opportunity to minimize the costs of sustainable development while ensuring that the sum of the whole is greater than the parts.

System integration is a key principle in driving the market towards implementing sustainable features, including cost competitive green building projects, regional planning efforts and ecosystem studies. Expanding integration to the neighborhood level is gaining momentum as displayed by U.S. Green Building Council's current project to create a LEED rating system for neighborhood development and adoption in planning.

We envision a SLU environmental sustainability plan that is fully integrated into the area's infrastructure, economic decision-making and social structure to maximize overall effects. Public and private leaders should advocate integration of building and infrastructure improvements within the area's ecosystem to maximize SLU's sustainable development as a whole, greater than the sum of its parts.

Scope

This report is meant to provide a prioritized green development strategy for South Lake Union focusing on select strategies that will allow the City of Seattle to make the most effective contribution to local sustainable development with limited

resources. This report is focused on neighborhood-scale strategies that the public sector can reasonably foster or implement. Currently, there are many resources such as the Vulcan-sponsored Resource Guide for Sustainable Development and ongoing citywide green development initiatives that range in scale from private development to the city and county scale. This document is focused on the unique opportunities that are present in SLU. Consequently, it should be noted that many strategies critical to the success of the neighborhood such as a multi-modal regional transportation system are purposefully left out of this report as they are beyond the scope. A summary matrix in Appendix A provides an overview of additional strategies.

How to use this document

The report is split into six major categories: water, energy, habitat, material use, built environment and education. Each category contains the following information:

1. A goal statement to provide a framework for considering and prioritizing individual strategies.
2. Primary strategies identified as having the best potential for maximum impact.
3. Resources listed under each primary strategy to provide further information about the strategy and contact information where applicable.
4. Secondary strategies identified as potentially beneficial to SLU, but without as great of impact as the primary strategies.
5. Additional strategies that were determined to be not as feasible or effective as the primary or secondary strategies.

Methods and Process

To provide background for the report, a survey of best practices from outside municipalities, industry publications and other sources was conducted. This preliminary research was reviewed in light of South Lake Union's unique characteristics as well as efforts currently being pursued by the City of Seattle to determine their applicability within the neighborhood. A set of overarching goals for green development was also developed from various sources including the City's Environmental Action Agenda, the South Lake Union Neighborhood Plan, the Cascade Neighborhood Council Sustainability Plan, and efforts in other cities and countries.

With this structure in place, we developed criteria for determining strategies that would be most effective in shifting development patterns toward green development and sustainability. They are as follows:

1. Effectiveness in fostering sustainability
2. Financial efficiency
3. Ability to implement (especially through public sector)
4. Compatibility with ongoing initiatives within the City of Seattle
5. Expandability to the rest of Seattle
6. Neighborhood-level scale

Using these criteria, we prioritized strategies for the neighborhood. Those strategies that were found to be most promising were analyzed in increased depth to understand the steps necessary for implementation.

Results and Discussion

Water

Goal: Water flows mimic natural systems of retention, infiltration and runoff while reducing the demand on potable water and reducing greywater and stormwater discharge levels.

Fresh water is a limited resource that must be shared between humans, plants, salmon and other wildlife. The replacement of forests with urban environments has severely altered the natural flow of water. Water now flows over roads collecting pollutants on the way to stormdrains where it is piped to a treatment center. Water is not allowed to permeate into the soil and irrigate vegetation and slowly flow into lakes and streams. At the same time, we use precious drinking water inefficiently including irrigation of our sparse vegetation. This irresponsible use of water threatens our generation and future generations. New technologies and development choices, however, can be used to conserve drinking water and improve water quality.

Water is an especially important asset in SLU. With waterfront access from South Lake Union Park, the neighborhood has a strong connection to water. The

neighborhood plan for this area values its maritime heritage and emphasizes a need to celebrate water. With the proposed new development in this area, an excellent opportunity exists to implement innovative technologies to reduce the demand on potable water, to decrease stormwater runoff, and to reuse water on site.

Primary Strategy: Improve water efficiency throughout South Lake Union.

Require water-efficient landscaping in street design guidelines and in open spaces. This strategy can reduce the amount of potable water demand for irrigation. The requirement could be placed in street and open space design guidelines. For areas planted at the time of new development, it does not cost extra money to use native, drought resistant plants instead of non-native plants. Not only will native plants require less water because they are adapted to the Pacific Northwest's dry summers, they will also generally require less maintenance.

This strategy also supports the goals of improving habitat within SLU by increasing native vegetation which will support native species.



Native landscaping in Seattle. http://seattletimes.nmsource.com/art/pacificnw/2005/0206/cover2_2.jpg

Create a biotech water efficiency incentive program. Biotech and medical facilities use a great deal of potable water for cooling, sterilization, washing equipment, and de-ionizing water. Local Seattle projects exhibit potential for reduced laboratory water demand. The Fred Hutchinson Cancer Research Center with the Saving Water Partnership reduced water consumption by 30,000 gallons a day, saving Fred Hutchinson \$94,000 a year. The University of Washington's Health Sciences facility is saving close to \$500,000 a year from water conservation initiatives. Seattle Public Utilities has created a water conservation Best Management Practices (BMP) report that specifically applies to biotech companies. Currently, the Water Smart Technology Program through Seattle Public Utilities provides rebates of up to 50% for retrofitting buildings with water-efficient technology. Seattle Public Utilities could expand this program to create an incentive program specifically tailored to biotech and medical facilities. It is necessary to promote these incentives to developers and potential biotech companies to make sure they are aware of the cost saving potential and the incentive programs.

References

Saving Water Partnership: Conserve Outside
<http://www.savingwater.org/outside.htm>

Resource Guide for Sustainable Development in an Urban Environment:
A Case Study in South Lake Union
http://www.usgbc.org/Docs/Resources/SLU_Final_10-22-02.pdf

Seattle Public Utilities' Biotech Water Conservation Best Management Practices.
Produced by Roger E. VanGelder, PE

Saving Water Partnership's Water Smart Technology
Fred Hutchinson Case Study
http://www.savingwater.org/docs/medical_casestudy.pdf

Primary Strategy: Implement incentive program to encourage integrated innovative stormwater management techniques throughout South Lake Union.

The majority of the stormwater in the SLU neighborhood goes to the Denny Way/Lake Union combined sewer overflow (CSO) system where stormwater is treated. Even though this system has the capacity to handle stormwater flow in South Lake Union, innovative low impact development (LID) techniques can help manage the peak flows and pollutants that reach the CSO. A small portion of the neighborhood, between Yale Ave. N. and I-5, drains directly to Lake Union. LID techniques can help filter water and reduce pollutants reaching Lake Union. Incentives could be used to encourage developers to use a combination of LID techniques.

The City of Seattle is currently working on an incentive program called Rainwise which would offer drainage rate reductions for owners who use sustainable stormwater management techniques. While this program will not be implemented until 2007, developers who are putting in infrastructure now can benefit from the rate reductions in the future. The following techniques should be included in the SLU incentive program:

Encourage use of greenroofs. Greenroofs include rooftop gardens or more intensely vegetated roofs that have thin layers of soil and draught resistant vegetation over a waterproofing membrane. Greenroofs help retain stormwater

and reduce runoff, counter the urban heat island effect, conserve energy through insulation and provide habitat for birds and insects.



Chicago City Hall
<http://www.asla.org/meetings/awards/awds02/chicagocityhall.html>

According to a stormwater site analysis performed by Seattle Public Utilities in approximately 25% of the sites in SLU, greenroofs will mitigate enough stormwater so developers will not be required to have a stormwater storage tank. This is a direct incentive for developers.

The City could also create incentives to encourage the use of green roofs. For example, the City of Portland provides an Eco-Roof Bonus for developers who ensure the installation,

preservation, maintenance, and, where applicable, replacement of greenroofs. In exchange for utilizing greenroofs, developers are allowed to build additional floor area based on the portion of the building covered by a greenroof.

Encourage use of bioretention and rain gardens.

This low-impact development technique has great potential in SLU. Bioretention is defined by the City of Seattle as a "vegetated area with surface storage and amended soil designed to store, infiltrate, and evapotranspire rainwater" (SPU's Rainwise Incentive Program). Rain gardens are a specific type of bioretention that are planted to look like gardens and are therefore attractive. According to the Puget Sound Action Team, they are low cost, easy to install, can provide habitat for wildlife, and are effective in treating stormwater. Bioretention



Bioretention in Discovery Center parking lot (source "green parking")



in parking lots, traffic circles, or even the proposed Mercer Median, would allow water to infiltrate into underground soil and gravel, filtering out pollutants from automobiles such as oil, grease, sediment, and heavy metals and preventing the water from flowing directly into storm drains. These features also enhance the aesthetics of the neighborhood.

For above ground parking lots, bioretention could be an excellent opportunity for developers. If a parking lot can be designed to handle all the runoff on site using rain gardens and bioswales, then the developer would not have to install expensive



SEA Streets natural drainage system. http://www.seattle.gov/util/About_SPU/Drainage_&_Sewer_System/Natural_Drainage_Systems/Street_Edge_Alternatives/index.asp

stormwater storage tanks. A rain garden case study in Bellingham, Washington, showed that the City saved 75 to 80 percent in construction costs of a parking lot by installing rain gardens instead of a costly in-ground vault.

Pursue possibility of natural drainage system East of Yale Ave N.

While the majority of the stormwater in SLU flows to the combined sewer overflow, a portion flows directly to the

lake. Runoff from some areas East of Yale Ave. N. combined with runoff from Capitol Hill and I-5 flow untreated into Lake Union. In this area of the Cascade Neighborhood, there is potential for a natural drainage system. While the City of Seattle has implemented a number of natural drainage systems in residential neighborhoods (see photo for example), this could be a showcase for how natural drainage could work in a high-density area.

References

Portland's Incentive Program for Greenroofs
33.510.210 Floor Area and Height Bonus Options
<http://www.portlandonline.com/shared/cfm/image.cfm?id=53363>

Contact: Marie Johnson, Senior Planner, City of Portland
(503) 823-7800

US EPA Low Impact Development Center
Vegetated Roof Cover Case Study

http://www.psat.wa.gov/Programs/LID/lid_cd/pdf_docs/LID_ROOF.PDF

City of Bellingham: Reigning in the Rain
Bioretention and Rain Garden Case Study

http://www.psat.wa.gov/Publications/Rain_Garden_book.pdf

Seattle Public Utilities Rainwise Incentives Program
Contact: Denise Andrews (206) 684-4601

Resource Guide for Sustainable Development in an Urban Environment: A Case Study in South Lake Union

http://www.usgbc.org/Docs/Resources/SLU_Final_10-22-02.pdf

City of Seattle Natural Drainage Overview

http://www.seattle.gov/util/About_SPU/Drainage_&_Sewer_System/Natural_Drainage_Systems/Natural_Drainage_Overview/index.asp

Primary Strategy: Encourage the reuse of stormwater stored in detention tanks for secondary uses.

Currently, all buildings in Seattle are required to store stormwater on site in detention tanks. Approximately 25% of the sites in SLU can be exempt from this requirement if they use innovative stormwater management techniques such as greenroofs, but the remaining 75% are required to store stormwater on site in detention tanks. The water in these tanks could be used for secondary uses such as on-site irrigation or flushing toilets. A direct incentive would be that the water bill for the building would be drastically reduced. An incentive program could also be used to give credit for reusing water by reducing the King County drainage tax.

References

King Street Center – uses rainwater to flush toilets
http://dnr.metrokc.gov/dnrp/ksc_tour/features/features.htm



Secondary Strategies:

- Encourage water efficiency in residential developments through promotion of financial incentive programs such as the Water Smart Technology Program the Laundrywise Program.
- Encourage the use of drainage cisterns for collecting rainwater for irrigation
- Reduce impervious surfaces by reducing the amount of space dedicated to automobiles.
- Encourage the use of permeable pavement such as pavers, grid systems, and porous concrete in appropriate locations throughout the neighborhood.
- Install green space that serves as a public amenity and as stormwater treatment.
- Create incentives and remove barriers for the reuse of graywater for non-potable uses.

Energy

Goal: Provide affordable and sufficient energy in a manner that is climate neutral and does not have local health impacts.

South Lake Union's current energy practices are unsustainable in the long term due to their dependence on fossil fuel. As petroleum supplies dwindle and the impacts of global warming grow, significant changes will be necessary to preserve our quality of life. Energy use in SLU in the form of electricity, transportation, building operation and industrial production contributes to local and regional air pollution, global climate change, dependence on foreign oil, energy price fluctuations, and other social, economic and environmental problems. While local energy use is necessarily tied to regional patterns, it is critical that Seattle use SLU as a model to forge green development patterns.

In drafting an approach to these issues, it is critical to understand how energy use is contributing to environmental degradation, particularly global warming and health issues. A 2000 Puget Sound Clean Air Agency study of the Puget Sound region entitled "Roadmap for Climate Protection: Reducing Greenhouse Gas Emissions in Puget Sound" found of the total greenhouse gas emissions, 17% came from electricity, 11% from agriculture, forestry & waste, 23% from buildings and facilities (excluding electricity) and 49% from transportation. The

City of Seattle has committed to the goal of meeting all local electricity needs with zero net greenhouse gas emissions by reducing electricity usage, decreasing overall systems needs, and eliminating fossil fuel use. As an area in which few people both work and live, SLU likely plays a significant role in transportation emissions due to the large commuting population. Consequently, while all aspects of energy use were surveyed in great detail for this green development strategy, particular emphasis was given to transportation patterns in the area as a chief contributor to environmental degradation.

Primary Strategy: Create a transit management association (TMA) or a coordinated transit demand management program to reduce single occupancy vehicle (SOV) trips within the neighborhood.

Automobile transportation is one of the greatest uses of energy within SLU.



The potential addition of a street car to SLU could fit well with TMA's program work. Above is San Francisco's Street Car. (picture "San Fran Streetcar")

As a growing center of business that draws employees from a regional pool, commuting will continue to impose significant negative impacts in the form of greenhouse gases, toxic emissions, decreased quality of life and loss of productivity.

TMA's have proven to be a significant tool for reducing the impact of transportation choices.

The mission of a

TMA is to promote economic vitality by providing transportation programs and services that improve access. Typically, TMA's facilitate this process by providing or coordinating transit passes, bicycling infrastructure such as showers and racks, flex cars, vanpools, ridesharing, and limited parking space sharing. TMA's can also work on advocacy issues by serving as a liaison to the City and by encouraging local businesses to adopt better business practices such as not providing free parking as an unintentional subsidy. The Lloyd District in Portland has seen SOV trips

decrease from 60% to 41.1% since the instigation of their TMA in 2004.

The case for a TMA within South Lake Union is compelling. Benefits that could be realized by creating a TMA include:

- Savings to business in parking space construction. The SLU 2004 Transportation Study estimated the upfront costs of additional parking spaces alone could total \$286 million by 2030 if current levels of driving continue.
- Increased productivity. The same study predicted that the total peak-hour network average delay for the neighborhood would more than double from 3.7 to 8.1 minutes per vehicle by 2030 if changes in commuting patterns do not occur. This loss of time is substantial and could be a source of serious frustration for employees as well as an economic drag on local productivity.
- Reduced exposure to air pollution. Exposure to idling cars represents a serious side effect of increased congestion which could be reduced.
- Enhanced employee benefits. Many people would like to be able to avoid SOV commuting due to cost and the frustrations of congestion. Bike infrastructure, carpooling resources, etc. are a significant employee benefit that could help to attract and maintain talented employees.
- Substantial greenhouse gas reductions. Automobile operation is the largest source of local greenhouse gas production. If Seattle is going to meet its greenhouse gas reduction targets, it will need to deal with automobile pollution.
- Pooled resources create neighborhood-wide incentive to act. A joint TMA program provides added incentive for businesses to adopt better practices as they know other businesses will join them in addressing a neighborhood-wide problem.

The potential for substantial biotech investment represents an additional opportunity for the neighborhood as many companies in this sector require employees to make frequent trips between home and work to check on experiments. Thus, employees of these businesses might be much more receptive to living locally and utilizing opportunities for alternative short distance commuting strategies. This synergy may allow for programs helping employees find local housing as a benefit to the individual, the company and the environment. A TMA might also encourage local employers to provide subsidized loans for employees purchasing a home near their business.

A critical element to be considered is the provision of substantial and reliable funding for a TMA. TMA's are typically funded through Business Improvement Districts and grants from local and state sources. In the near term, this funding might be difficult to obtain as businesses may soon be taxed to support the street car. Extending the BID created for the street car may be a viable option for funding a TMA in the future. The Lloyd District TMA provides examples of other funding sources that may be possible in South Lake Union: parking meter revenue and commission on transit pass sales. Similar to South Lake Union's current situation, Lloyd District originally had few parking meters. As a compromise with business owners, parking meters were installed in the district and the revenue was directed to a TMA. This change served multiple purposes by discouraging commuter parking, reserving parking for local businesses and providing a revenue stream. Consideration of this option should be included in the SLU Parking Strategy that is currently in development. Similarly, a program to sell reduced-cost bulk transit passes to local companies on commission for Portland's Department of Transportation has served multiple purposes by encouraging transit pass use, providing improved employee benefits for local companies and providing a revenue stream. A similar program selling Flex-Passes could be successful. Alternatively, the current funding mechanism for the street car includes bulk ticket sales to local companies which could also be a possible synergy.

As a note of caution, a TMA can not be successful in funding or programming without buy in from the local business community. Critical to the implementation of this recommendation will be extensive outreach to local businesses to demonstrate the financial and environmental benefits. Without their support, a TMA will be ineffective.

References

SLU Transportation Study

www.ci.seattle.wa.us/transportation/southlakeunion.htm
(Transit Demand Management discussion – p. 131-137)

Lloyd District TMA

www.ldtma.com

Contact: Rick Williams, Executive Director - (503) 236-6441

Greater Redmond Transportation Management Association

www.grtma.org



Transmanage

www.bellevuedowntown.org/maps/transmanage.html

Bellevue Downtown Association's Transportation Management Arm

Primary Strategy: Institute a ground source heating/cooling project and monitor results to create a case study

Ground Source Heating/Cooling utilizes the constant temperatures that exist below the earth's surface to greatly increase the efficiency of heating and cooling. Liquid is pumped through pipes that are buried deep into the ground (usually 50' to 300') to exchange heat. Cooling is provided by circulating the liquid which is chilled by cooler ground temperature. Heating is provided by heat pumps which produce heat for the building while chilling the liquid. This chilled liquid is then circulated through the pipes and re-heated by the relatively warmer ground temperatures. This system works especially well in large office buildings that require both heating and cooling all year long.

The technology involved in ground source heating/cooling has been available for a long time; however, it is becoming a much more attractive option as equipment becomes cheaper and more efficient. As fuel prices continue to fluctuate and increase, ground source heating/cooling will continue to make more financial sense both to reduce current costs and to insulate businesses against future price spikes. In the short term, it could also provide a bonus to developers trying to gain LEED certification as it could potentially impact four credits: energy, water reduction (no evaporation cooling), green roofs (removes need for roof machinery) and innovation. A ground source heating/cooling system was recently installed in Bellevue Community College's R-Building and is planned to be incorporated in the South East False Creek neighborhood and a 60-story Shangri-La hotel building in Vancouver, Canada. Bellevue Community College expects to reduce energy costs by 30% with their system.

Ground Source Heating/Cooling represents a unique opportunity in South Lake Union because of the substantial investment in infrastructure that will be made and because the technology is becoming ripe for expansion but has few local examples. As such, a local pilot project has great potential to affect the private development sector well beyond the impact of the project itself. If done properly it could serve as an educational tool, providing financial and technical guidance as well as confidence to local developers, which might help to begin market

transformation.

References

Bob Klug of Seattle City Light is actively pursuing this option

Phone: 206-684-3341

Secondary Strategies:

- Encourage multi-building heating and cooling strategies where waste heat from refrigeration, computer operation, laundry machines, restaurants or industrial operation could be valuable to other users. Office buildings which often require year round cooling in some sections also provide an opportunity for heating/cooling exchange.
- Support alternative energy projects and integration into district energy network.
- Investigate ground source heating, biodiesel, and photovoltaic cells in the short term, with long term investigation of fuel cells and wind energy.
- Encourage "future-proofing" of buildings to allow for installation of alternative energy projects as changing fuel prices make them economically feasible.
- Work with developers to make business case for incorporating high performance energy efficiency measures as a cost effective development strategy.

Additional Strategies:

- Encourage use of micro-turbines with steam co-generation as local energy sources to reduce transmission loss and harvest waste heat where carbon neutral energy sources are not possible.
- Incorporate photovoltaics where they could replace other materials such as shelters, paneling or screening elements to defray upfront costs.
- Explore establishment of micro-grid and pooled energy backup to facilitate future adoption of distributed energy production.



Integrated Photovoltaics (picture of same name, source freefoto.com)

- Explore revising energy code to increase energy efficiency.
- Create energy performance bonds for private energy efficiency initiatives payable 5 years out to guarantee monitoring and compliance.
- Utilize smart metering to increase awareness of energy use and decrease peak time energy use.
- Utilize pedestrian scale lighting to minimize energy needs and light pollution.
- Encourage motion or photocell sensors as lighting cut-offs to decrease night-time energy use.
- Encourage energy efficient buildings through site selection, massing, intelligent envelope (operable windows, shading devices, motorized blinds, etc.), lighting control, thermal storage (thermally massive floors, trombe walls), HVAC systems, etc.
- Support installation of alternative automobile refueling stations, particularly biodiesel.



Habitat

Goal: SLU provides habitat for an abundance and diversity of life forms while providing vital human benefits such as air filtration, shading, water retention, aesthetic impact and food.

Due to its initial industrial development, the current habitat of South Lake Union has large areas of impervious surfaces, few green areas, and lacks natural connections that help to create a thriving habitat for all life forms. An improved habitat would have several benefits in SLU. Increased biodiversity, through the implementation of a diverse landscape that includes forested areas, open space, and natural connections with Lake Union and other areas of the city, would reduce the amount of impervious surfaces in the study area and reduce the heat island effect prevalent in heavily developed areas. Improved habitat also provides natural stormwater reduction through tree canopy increases and various natural drainage techniques. Habitat improvements result in an improvement of the quality of life for all residents, including humans.

Primary Strategy: Create a urban forestry program that emphasizes canopy coverage, big trees and species mix to provide cover for South Lake Union.

Street trees and urban forests can be a valuable addition to promoting sustainability in South Lake Union. Among the benefits of urban forests are increased habitat potential, stormwater retention, air quality improvements, carbon sequestration and reduction of the urban heat island effect. Urban trees also create a pleasant streetscape that enhances pedestrian corridors. Additionally this type of program could create natural and visual linkages with Lake Union and Denny and Cascade parks. Incorporating green walls along with big trees into South Lake Union could increase the effect of this initiative.



This small parcel in SLU is a good example of coniferous and other large trees in a small city owned parcel. (picture "pine small park")

In a report published in 2000 Cascadia Consulting Group estimated canopy cover at 12.5% for the Central Business District (CBD). American Forests recommends 15% for Pacific Northwest CBDs and, as a lower density CBD, South Lake Union could do better. A short-term goal of 15% canopy cover with a long-range objective of 20% is attainable in the study area, especially with a willingness to use conifers and larger trees. This is an achievable goal comparable to the Lloyd District targets in Portland, Oregon of 25% canopy coverage by 2050.

Current strategies that should be adopted to increase canopy cover are the addition of conifers and other large trees (greater than 40 feet). These trees provide much greater stormwater attenuation and maximize the ability to shade buildings from solar gain better than the smaller trees commonly planted. City-owned parcels



that are underdeveloped as parking lots or otherwise provide a particularly good opportunity to increase habitat and create patches of green through planting trees and other vegetation such as bioswales. These trees could then be transplanted as larger street trees as the neighborhood is redeveloped. This would allow the city to easily increase forest canopy and create temporary “nurseries” to provide for long-term needs.

Issues that would need to be addressed at implementation are spacing of trees in relation to planting strips and balancing maintenance needs of conifers versus deciduous trees. Both have advantages depending on location and desired goals within SLU.

References

Urban Forestry at American Forests

<http://www.americanforests.org>

Gary Moll, (202) 737-1944 x220

Cascadia Consulting

<http://www.cascadiaconsulting.com/>

Shane Dewald –SDOT 206-684-5041

Primary Strategy: Investigate setting ecological minimum targets for residential, commercial, and public buildings using a green area factor/biotope area factor as a measuring tool.

Green area factors would provide the City and developers a way to measure the portion of land designated to serving ecosystem functions. This measurement standardizes environmental goals such as:

- Improving the microclimate and reducing the urban heat island effect.
- Maintaining and improving soil function and water quality.



Greenwall photo from www.americanforests.org

- Enhancing the quality of plant and animal habitat.

The green area factor is a ratio of the ecologically effective surface area to the total land area of a development. The ecologically effective surface area includes areas such as open space, courtyards, roofs, and walls. Each type of land use in these areas is given a score between 1.0 and 0.0. Impermeable surfaces would get a score of 0.0 and vegetation connected to the soil below would get a score of 1.0. Typically, green roofs would get a score of 0.7 and green walls would get a score of 0.5

This could be a voluntary program in which the City would set targets for new development to achieve certain green area factor ratings. City staff would provide technical assistance for interested developers and would create an award system based on the ratings, similar to the LEED designations.

References

Berlin, Germany's Biotope Factor

http://www.stadtentwicklung.berlin.de/umwelt/landschaftsplanung/bff/index_en.shtml

Malmo, Sweden's Green Point System

<http://www.map21ltd.com/scan-green/bo01.htm>

Secondary Strategies:

- Increase connectivity and quality of various habitats that already exist in South Lake Union. Green connections should be made between Cascade, Denny and South Lake Union parks to leverage existing habitats via green streets or linear parks.
- Use native vegetation when possible to minimize water needs and provide habitat to birds and other wildlife.

Additional Strategies:

- Encourage edible landscaping for human and animal consumption.
- Utilize rooftops as green space and agriculture opportunities.



Vertical landscaping at the REI building greatly improves the local streetscape. (picture “vertical landscaping”)



- Encourage vertical landscaping.
- Manage parks and open space in a manner that reduces energy and water use without the use of pesticides.
- Consider spearheading an economic appraisal of the benefits of existing and proposed trees in SLU, using a modeling program such as CityGreen.
- Consider areas where leaves can compost naturally.
- Introduce earthworms to planting mix to reduce compaction, add nutrients and supply food.

Material Use (Waste)

Goal: Production of goods should occur in a closed-loop in which end products are utilized in production of other goods and toxics and wastes are eliminated.

The City of Seattle has one of the most aggressive recycling programs in the country. Recycling is mandatory for both businesses and residential units and due to the program 60% of the waste stream is diverted from landfills. Additionally, they have begun a program to offer curbside compost pick-up for residential units to be sorted with yard waste. These programs have accomplished much but can be built upon in South Lake Union with two strategies that reduce transportation costs and impacts, making sustainability more visible while closing production loops within the neighborhood.

Primary Strategy: Create a comprehensive program for the reduction of materials used in building through construction waste.



Construction Recycling Photo via <http://www.umich.edu>

Construction waste will be a major component of the South Lake Union redevelopment and an aggressive recycling/reuse program could minimize landfill needs, reduce transportation costs and demonstrate what incentives are available. Currently LEED provides up to 11 credits for recycling and reuse of over 50% of waste by weight and an additional 2 points for over 75%. While King County Metro currently has programs available for recycling, an opportunity exists to deal with transfer/exchange of

these materials on site, saving transportation costs and creating a local re-use program based in SLU. This could be done on a city lot that is awaiting future redevelopment. The City of Seattle should also investigate a refundable deposit that contractors will get back if they will recycle at a certain level (50% in San Jose, California). This deposit would allow the city to educate contractors as to available programs and outlets for construction waste recycling. With over 3-5 pounds of construction waste generated per square foot, a biotech lab of 25,000 square feet would generate up to 62 tons of construction/demolition waste, so increases in diversion could result in large increases for the sustainability of South Lake Union. Additionally, diversion will save anywhere from 10-38% in disposal costs according to the Southeast False Creek Water & Waste Management Plan.



On-site composting. www.americanforests.org photo credit composting.jpg

References

Southeast False Creek Management Plan
<http://www.city.vancouver.bc.ca/commsvcs/southeast/index.htm>

King County
<http://www.metrokc.gov/dnrp/swd/construction-recycling/>
 Kinley Deller (206) 296-4434

Primary Strategy: Create a local composting facility in South Lake Union.

Local composting facilities would allow for organic matter to be used in the neighborhood. It could create a closed loop system in conjunction with the P-Patch, rooftop gardens and urban agriculture initiatives. Currently, the City of Seattle is offering composting of yard waste to residents of the city. This strategy in SLU would build on that by encouraging local use of this resource. This strategy would most likely be implemented at the Cascade Neighborhood P-Patch site or another P-Patch within the neighborhood as is done at other P-Patch sites. Local composting would provide a source of organic material for the P-Patch and gardens in the neighborhood while eliminating transportation and disposal costs by removing it from SLU. This is a project that could be coordinated by community groups within SLU.



References

Southeast False Creek Management Plan-

<http://www.city.vancouver.bc.ca/commsvcs/southeast/index.htm>

Primary Strategy: Encourage adaptive reuse of existing buildings.

Adaptive re-use of existing structures should also be considered where appropriate. This eliminates the need for new materials and can preserve existing neighborhood character while displaying creative reuse. Further information on adaptive reuse can be found in section 7.

Additional Strategies:

- Work with contractors to design comprehensive, integrated waste, recycling and compost plan for each building that simplifies and integrates collection, handling and, where necessary, off-site disposal.
- Provide recycling stations in common areas of commercial buildings and kitchen of residential to facilitate recycling.
- Encourage installation of equipment such as compactors and waste recycling chutes.
- Use high recycled content materials such as concrete with fly ash to minimize use of new product.
- Use locally-produced materials and seek alternatives to imported materials first as they represent the largest energy expenditures.
- Use Rapidly Renewable Resources (RRR) such as bamboo to minimize damage in harvest of materials.
- Use Forest Stewardship Council (FSC) certified wood to guarantee that sustainable forest practices were used in harvesting.
- Foster a local network of demolition and building contractors to create a market for recycled and salvage materials.
- Encourage and facilitate multi-building heating and cooling strategies where waste heat from refrigeration, computer operation, laundry machines, restaurants or industrial operation could be valuable to other users.
- Support recycling and reuse through the creation of a sustainable development center that helps identify and catalogue alternative materials and develop guidelines for their incorporation into specifications.

Built Environment

Goal: Facilitate a built environment structured to enhance the quality of surrounding natural environments.

Building activity will likely be an enormous influence on the South Lake Union area for the next decade and, as a result, the face of SLU will change. The coordination of the built environment with the natural environment is a difficult and often expensive venture. Albeit the good environmental will of SLU's major developers, the City of Seattle should recognize income requirements and influence green development decisions with regulations that have minimal affect on project cost. Recognition and prioritization of these measures is integral to SLU green development.

Primary Strategy: Encourage the use of light colored roofs on all new structures.

Covering an immense portion of the urban environment, roofs make up a great deal of urban surface area. Varying roof colors in urban areas can have substantial impacts on local temperatures.

Requiring that all new roofs in South Lake Union be of light color to reflect rather than absorb heat is an easy method with minimal cost to reduce urban heat island effects. Furthermore, light colored roofs can lower cooling loads which would reduce energy use during warm summer months. This may be attractive to renters and developers who recognize potential energy savings.

Chicago and San Diego have utilized incentive programs to encourage light colored roofs. Light colored roofs will have no additional cost to developers and require minimal certification effort.

Free municipal program design and consulting is available at the Cool Roof Rating Council (CRRC), <http://www.coolroofs.org/>. CRRC also includes information about specific roof products/materials that have further environmental attributes including recyclable contents.

References

Cool Roof Rating Council, Oakland, CA

Contact: Sarah Van Mantgem, Administrative Manager – (866) 465-2523

Sarah@Energy-Solution.com



Primary Strategy: Reduce street and on-site parking area.

Reducing the area required for parking spaces should be considered. Increasing oil prices, rising demand for smaller more efficient vehicles, SLU mass transit/alternative transit infrastructure and general SLU area demographic trends highlight future demand for smaller, more efficient vehicles.

Reduced areas for local vehicular use would be a progressive recognition of the trend towards smaller cars that will likely result in SLU and greater Seattle. Reduced automobile area would increase pedestrian, bicycle and green space. These attributes would encourage local non-automotive traffic and raise the aesthetic appeal and value of the space while allowing increased pervious surface materials that are less rugged than standard street pavement. This should be coordinated with green street efforts to maximize benefits.

References

City of Portland Bureau of Planning, Environmental Planning Team
http://www.psat.wa.gov/Programs/LID/portland_parking.pdf
Contact: Tom Carter, City Planner—Portland Bureau of Planning
(503) 823-5772

Secondary Strategies:

- Investigate site-specific zoning incentives.
- Certain spaces provide great potential to drive sustainable social activities. For example, a daycare located along a bike trail may enable parents to deliver children to daycare while bicycling to work. Recognize similar opportunities and give developers Floor Area Ratio incentives to provide them.
- Create toxic building materials inventory.
- Take inventory of cost effective substitutes for toxic materials within common structures. Often greener building techniques are not adopted because of the time cost of finding substitutes. Facilitate this connection for builders.
- Replace minimum parking requirements with parking caps.
- Impervious parking surfaces take up a large amount of space in urban areas; provision of this space is expensive to developers. Often large amounts of parking are underutilized. Allow developers to decide how much parking to provide for specific uses. Let developers who reduce parking investments to increase green site design or green building

investments.

Additional Strategies:

- Promote mixed-use, transit-oriented development in accordance with SLU's urban center designation.
- Create safe, comfortable and enjoyable pedestrian environment.
- Reuse existing buildings where possible.
- Investigate feasibility of moving residential structures to new locations instead of demolishing new homes.
- Orient buildings to maximize benefit from solar energy.
- Encourage day lighting and natural ventilation. Consider encouraging narrow building floor plates to facilitate this process.
- Encourage development that allows longevity, flexible use and recycling of building after use.
- Encourage development of buildings that can easily incorporate sustainable technologies such as alternative power or greywater when it becomes profitable.
- Change parking lot requirements to include landscape treatments that add vegetation, provide shade and buffer parking lots.
- Recognize indoor environmental quality as an important consideration including access to natural light, view, air quality, ventilation and acoustics.
- When building public facilities, integrate environment considerations into proposal RFP and bid processes.
- Encourage integrated building design.

Education and Communication

Goal: The principles of sustainability must be communicated to the public in order to ensure personal responsibility, make natural process visible and celebrate successes.

Education and communication are key elements to the saturation of new ideas into the social framework. Sustainability is a growing social trend in the Northwest; however, people are still unacquainted with evaluating the costs and benefits of green development over time. Education should be highly accessible and interesting for all age groups.

Within the Seattle area, numerous resources exist for researching and adopting sustainable practices in building, purchasing and lifestyles. Fostering the relationship between sustainable technologies, practitioners, and interested parties



should be a top priority of anyone attempting to promote green development.

Primary Strategy: Create a sustainable development center.

Our research into urban sustainability has highlighted the fact that while a great deal of information and resources exist, there is little comprehensive coordination. The great efforts of the vast array of entities pursuing sustainable development should be coordinated in an educational clearinghouse environment. As interest grows among citizens, non-profit groups and builders, a sustainable resource center would be an important tool to facilitate and make visible the value of urban sustainability.

Moreover, the substantial and growing collection of City programs and incentives for green development should be available in a single location so that developers and builders can take advantage of these opportunities early and often. This matter is critical because early integration of green development is necessary to make it cost effective.

A multi-story building, resembling future SLU construction, with a full time staff and other integrated uses would serve as a strong resource for interested parties. This building might also include 1) citizen educational and recreational resources, drawing tourists and boosting commerce, 2) space for community meetings or organizations.



*Natural Capital Center Portland, OR.
www.darkwing.oregon.edu*

Chicago and Portland both have sustainable resource centers. Chicago's Center for Green Technology is a resource for local builders and citizens interested in sustainability. They provide space for workshops and learning activities as well as tours. Portland's Natural Capital Center is a striking embodiment of the City of Portland's commitment to sustainability. The center provides synergy for environmental offices located within and is a physical model of sustainable building practices. Given the large amount of development that will occur in SLU and the growing interest in sustainable building amongst developers, Seattle should take this concept and provide similar

resources to the city and guide local sustainable development.

References

Chicago Center for Green Technology

<http://www.cityofchicago.org/Environment/GreenTech/sub/how.html>

Contact: Grace Troccolo (312) 746-9771

gtroccolo@cityofchicago.org

The Natural Capital Center

<http://www.ecotrust.org/NCC/>

Contact: Sydney Mead, Center Manager – (503) 467-0767

sydney@ecotrust.org

Primary Strategy: Create a neighborhood environmental council.

This council could be a part of existing neighborhood groups such as SLUFAN. The purpose of the group would be to promote environmentalism within the neighborhood and to educate residents. The council could monitor progress in the neighborhood, coordinate the implementation of the recommendations of this report, and organize projects such as neighborhood block group challenges to get community members involved and excited about sustainability. Because South Lake Union will be a dense neighborhood, the council could also create challenge programs between housing developments, such as recycling and composting challenges.

Primary Strategy: Use green development for education and marketing purposes.

The Community Identity section develops this strategy further in section 1.

Primary Strategy: Develop neighborhood sustainability indicators to monitor progress, increase public awareness and foster accountability.

A critical aspect of our overall green development strategy will be monitoring the results to gauge the success of each initiative and to make changes where progress is not being made. In order to measure performance, we recommend a set of neighborhood sustainability indicators be developed and monitored regularly. While necessary to gauge the impact of the rest of the strategies, efforts should be made to ensure that measurement does not take away resources from

implementation. Selected indicators should be reflective of the neighborhoods goals and strategies, broad in scope, easy to understand, easy to measure, and reliable. Moreover, they should build upon data that is either already collected or can be readily recorded. Below is a partial list of indicators that should be considered:

Primary Incentives

- Water use
- Electricity use
- Transportation mode split
- Waste generation
- Recycling rates
- Percent tree cover
- Impervious surface

Secondary Incentives

- Water discharge to sewer system
- Percentage of buildings receiving LEED certification
- Amount composted
- Area of community garden
- Distance of bike lanes
- Bird populations
- Vegetation diversity
- Percentage of construction material recycled
- Number of citizens involved in green development tasks
- Percentage of area within half mile of important amenities

Depending upon the programs implemented, specific indicators measuring the effects of specific programs might also be useful.

As comparison of different business types can be a misleading exercise, consideration should also be given to whether residential and commercial/ industrial uses should be measured separately and whether per capita or per floor space are appropriate normalizers. For example, electricity may be reduced if industrial uses are pushed out in favor of office jobs; however this would not necessarily be an indicator of positive change. An indicators project could also be expanded to measure other sustainability objectives not considered in this report such as social and personal health.

References

The Northwest Center for Livable Communities

NWCLC began the development of sustainability indicators for SLU but has not yet finished the project.

depts.washington.edu/nwclc/

Southeast False Creek Sustainability Indicators Report to City Council

www.city.vancouver.bc.ca/ctyclerk/ccclerk/20050301/ph2.htm

Sustainable Seattle: Active in neighborhood indicators

www.sustainableseattle.org

Secondary Strategy:

- Monitor economic & environmental benefits of programs.
- Economic consultants can provide insight into the complicated relationships between dollar values and the environment. Economic impact analyses will highlight promising relationships that are currently unrealized.

Additional Strategies:

- Provide holistic “green audits” to private companies to foster green development.
- Use an interpretive sign system to display green development projects, water flows, rainwater reuse, and other green strategies.
- Develop an arts approach that features ecological artists.
- Create self-guided sustainability tours of the neighborhood’s sustainable assets.
- Evaluate the potential of festival at South Lake Union Park celebrating sustainability, potentially as a city-wide Earth Day event.





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Executive Summary

Travel into and about South Lake Union is currently a complex and difficult process. This report summarizes the analysis and recommendations made in three key areas that contribute to how people travel: connectivity, wayfinding and walkability.

Connectivity. Interstate-5, Denny Way, Aurora Avenue, and Lake Union itself limit the accessibility and appeal of South Lake Union (SLU) from its surrounding neighborhoods. Key entrances into SLU were identified and recommendations are made that would enhance connectivity both physically and psychologically.

Wayfinding. A wayfinding system was developed to guide both the familiar and unfamiliar travelers into, around and out of SLU. Key entrances and attractions as well as the points between are identified as places for wayfinding tools such as guiding posts and kiosks.

Walkability. A walkability study of SLU was conducted using GIS Network Analysis to determine the percentage of parcels that are within walking distance of a given set of services (banks, post office, schools, libraries, restaurants, bars, etc). The results of the analysis identify the areas within SLU where residential development should be concentrated as well as areas where certain services are lacking.

Connectivity

Introduction

South Lake Union is physically isolated from its surrounding neighborhoods by several regional transportation networks – Aurora Avenue/State Route-99, Interstate-5 and Denny Way. Aurora Avenue has a cement barrier/median making it impossible for automobiles and pedestrians to cross, thereby blocking the connection between SLU and Seattle Center, Uptown and Queen Anne. The I-5 freeway, a multi-lane, multi-level concrete structure, hinders access to Capitol Hill. The lack of information of what lies ahead deters pedestrians and confuses automobile drivers. The presence of the interstate also causes high automobile traffic during peak hours, creating connectivity difficulties across Mercer Avenue and Denny Way. During rush hour, Denny Way impedes connectivity between SLU and north downtown, especially for pedestrians. These physical barriers make it

difficult to reach destinations within SLU. Finally, it is difficult to know when one has entered the neighborhood because of a lack of signage. This psychological barrier may discourage visitors from venturing into the neighborhood.

Methods and Findings

The University of Washington Urban Design and Planning team walked the perimeter of SLU to better understand the problems of connectivity in the neighborhood, specifically seeking the physical connections between SLU and its surrounding neighborhoods. Beginning near the intersection of Eastlake Avenue and Yale Avenue, the team walked east into the Fred Hutchinson campus. Turning south at Interstate-5, they searched for connections east into Capitol Hill. There are two automobile/pedestrian connections at Lakeview Boulevard and Denny Way bridging over I-5. Lakeview Boulevard offers a beautiful view of Lake Union, and each time the bridge was visited, pedestrians and bikers were found enjoying the walk. For non-automobile travelers, it is a long, but gentle climb north, along the freeway that then turns east to cross Interstate-5 into Capitol Hill (Figure 1.1).



Figure 1.1 The top of the Lakeview Boulevard bridge over Interstate-5

important connection, used by both automobiles and pedestrians.

Thereafter, the southern edge was explored on Denny Way. Denny Way is a preferred east-west arterial for many drivers since it is one of a few streets that offer a direct two-way route to the west and east. The un-matching street grid



Figure 1.3. The grid patterns are misaligned at the joining of the North Downtown and SLU.

the boundaries of SLU in an artistic and appealing way, as opposed to simple signage.

The challenges posed by Interstate-5 are similar to those posed by rivers in dense urban areas. To remedy these challenges, the team explored measures taken by cities with rivers, such as New York City, Paris, and Amsterdam. In these cities, bridges are viewed as more than a necessary component of the transportation network; rather, they are celebrated as a beautiful part of the city. Artistic, appealing decorations and enhanced pedestrian amenities can transform the Lakeview Boulevard and Denny Way bridges over Interstate-5 into gateways into SLU that inform travelers that they are entering a real, vibrant, growing neighborhood – a neighborhood that the city cares about. Additions such as flags and pedestrian-scale, old-style lampposts could give the bridges a ‘London Bridge’ atmosphere that celebrates the maritime traditions of SLU and has a classic look. To extend this connection, east- and west-bound streets leading further into SLU are necessary. Currently, pedestrians are well serviced, but automobile traffic on Eastlake Avenue is forced to travel two blocks south to Republican Street in order to head west. A portion of Mercer Avenue, between Fairview Avenue and Eastlake Avenue should be converted into a two-way street to better serve the Lakeview Boulevard entrance from Capitol Hill. The Seattle Department of Transportation has already begun plans to convert the entire Mercer corridor into a two-way street.

Denny Way, a popular and highly traveled arterial should be better integrated with the upcoming changes occurring in the area. The Denny Way streetscape does not offer many opportunities for changes because the area is physically built up and heavily used (figure 1.6). A great opportunity to link the already occurring development of the 2200 Westlake development at Denny Way between Terry and Eastlake Avenues presents itself here. The development, which will include a Whole Foods grocery market, retail space, condominiums and hotel rooms, offers the unique chance to integrate a pedestrian bridge into the design, which would connect it to SLU. The bridge could begin in the new development at an outdoor European-style plaza above street



Figure 1.6 Emergence of State Route 99 onto Aurora Avenue

level. This would encourage and foster safe pedestrian access to and from SLU to the northern edge of Downtown at the Denny Triangle. This development is a highly anticipated commercial and retail hub that locals and tourists are bound to experience, furthering the need for a safe, attractive and convenient way to get closer to the future amenities and services SLU will be providing.

SLU is disconnected from its western counterparts of Seattle Center and the Queen Anne neighborhood because of Aurora Avenue. The exit/conversion of Aurora Avenue with SR-99 at Denny Way is an imposing barrier that restricts travel across this high speed arterial. One of the few east-west crossings is through Denny Way, and the next crossing is a few blocks north in Queen Anne. Figure 1.6 shows traffic entering Aurora Avenue from SR-99. At the moment, the City of Seattle is considering two options to increase mobility and decrease traffic in this general location, which will guide the coming recommendations.

Alternative I: The City of Seattle is considering sinking Aurora Avenue to the current depth level where it exits the underground tunnel below the intersection of Denny Way and Aurora Avenue. This project will integrate two at-grade pedestrian bridges over the sunken road, one at Republican Street and the other at Harrison Street across Aurora Avenue. This proposal would also eliminate Broad Street, resulting in a consistent grid pattern that is now distorted by the diagonal running Broad Street.

Alternative II: In this alternative, Aurora Avenue would remain as it currently exists. The need for a pedestrian linkage becomes more crucial, particularly because there are no vehicular or pedestrian bridges proposed for this scenario. A pedestrian bridge should be constructed at Thomas Street over Aurora Avenue. Thomas Street is appropriate because it is central to Seattle Center, which is highly visited by both locals and tourists. Moreover, the proposed monorail station will be located in the triangular block bounded by John Street, Broad Street and 5th Avenue, one block from Thomas Street and the proposed bridge.

While the above recommendations will enhance pedestrian access to SLU from the east, west and south, it is still difficult to enter SLU from the north without motorized transportation. Considering the growth expected in SLU over the next twenty years, as well as the popularity of Fremont and other Lake Union neighborhoods as hubs of activity, a “water bus” type of ferry service in Lake Union has considerable potential. Westlake Avenue and Fairview Boulevard are pedestrian friendly, but the walk along Lake Union is long, and a “water bus” type of service would enhance the ability of pedestrians to enter and exit SLU. The

patterns that meet at Denny Way cause a disconnect between SLU and North Downtown (Figure 1.3). The grid pattern south of Denny Way and its awkward alignment with respect to the grid pattern north of Denny Way limit a continuous, directional flow at the automobile level and is worse at the pedestrian/bicycle level. Moreover, steep topography in some sections on Denny Way carry an added risk for anyone crossing Denny Way at the street level. Cars climbing the hill cannot see pedestrians crossing at the top of it. Along Denny Way, there are only a few pedestrian crossings (at Eastlake, Terry, and Aurora Avenues). Moreover, the pedestrian wait



Figure 1.3. The grid patterns are misaligned at the joining of the North Downtown and SLU.



Figure 1.4 Concrete barrier in the Aurora Avenue median

period to cross is lengthy and risky as automobile drivers are moving at alarming speeds through here. There is a clear need to integrate pedestrian mobility and safety across Denny Way.

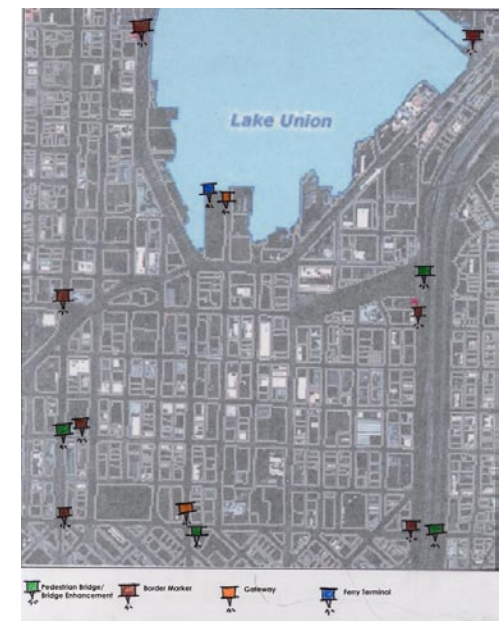
Observations were then conducted along Aurora Avenue. Looking west towards Seattle Center from the eastern sidewalk of Aurora Avenue, a disconnect between SLU and the Seattle Center area is evident (Figure 1.4). Aurora Avenue is a high volume automobile thoroughfare that gives travelers little opportunity to make use of the businesses to either side. Considering the tourist and local attractions to the west of Aurora Avenue and the revitalization of SLU, the need for unification of these two areas is crucial. Most of the businesses located near Aurora Avenue need a facelift and there is little pedestrian activity around them. Moreover, Aurora Avenue's sidewalks are poorly maintained and are difficult to travel on. Sidewalks are misaligned, cracked and lifted by roots, creating an unsafe pathway for people with disabilities.

The team then turned east and walked along the waterfront back towards Fairview Avenue. The waterfront boasts a beautiful park and several restaurants and marine spaces. The only way for non-boat owners to approach it is from Fairview or Westlake Avenues or from Valley Street. However, on several occasions from several sources, the team learned that SLU citizens are interested in bringing passenger ferries into Lake Union to service the immediate neighborhoods. To address this need, private organizations were contacted and interviewed, and potential sites for a landing were investigated.

The walk around the perimeter of the neighborhood allowed for observations of physical connectors to surrounding neighborhoods. Visual connections that would encourage travelers to cross boundaries and enter SLU were also explored. All edges lack a signage system identifying South Lake Union, and there were no advertisements of the attractions ahead.

Recommendations

The entrances to SLU should be enhanced with gateways that celebrate the neighborhood and mark its borders. In the north, such gateways could be placed on the docks of the future ferry terminal leading into South Lake Union Park and on Fairview and Westlake Avenues as people enter the neighborhood; in the east, at the foot the two bridges over Interstate-5; in the south, over the streetcar tracks on Westlake Avenue; and in the west, on Denny Way, Thomas Street, and Mercer Avenue. While the gateways on Westlake Avenue and at the docks should be large and celebratory, perhaps arches spanning the road, the gateways at the east and west could be smaller markers that encompass the maritime theme of SLU. Like the totem poles outside Pioneer Square and the statues marking the edges of Fremont, large anchors, ship's wheels, or wooden boats would mark



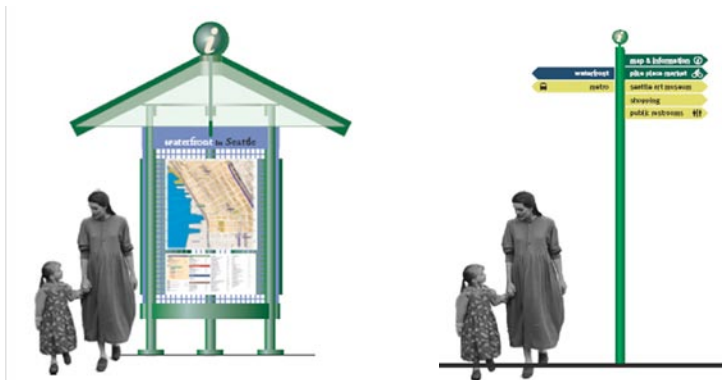
Connectivity Recommendations

best location to place the ferry terminal would be in or near South Lake Union Park. This area has the greatest potential for a “grand entrance” into SLU, and it is well connected to the bus system and the future streetcar. These connections would be beneficial to both Seattle-residents and tourist traffic. To accomplish this, the city could entice a private company to launch a ferry enterprise by offering the conditional use of one of the piers outside the Armory building.

Wayfinding

Introduction

The City of Seattle contracted Sea Research Ltd. to research and develop a wayfinding system, a project entitled the “Center City Wayfinding Project.” This research was the second phase of the original pilot study conducted by the Seattle Department of Transportation that installed 28 wayfinding kiosks in the downtown Pike Place area and First Street. The Sea Research Ltd. study, completed in 2003, created a design manual to be used by center city neighborhoods specifying the design guidelines for a system of kiosks (Figure 2.1) and finger signs (Figure 2.2) such that the wayfinding system is unified between neighborhoods. The project has since been passed back to the Seattle Department of Transportation. No tools have yet been installed.



Figures 2.1 & 2.2 Design for Kiosk and Finger Pointing Sign. Courtesy Sea Research Ltd.

Thus, this is not an attempt to design an entirely new wayfinding system for SLU. Rather, this report is limited to identifying the specific locations that the wayfinding tools should be placed. An additional recommendation is also included for a supporting, minor layer of wayfinding that does not rely on signage, and that could possibly be implemented citywide.

Methods

Using the Sea Research study and onsite observations, entrances were mapped and classified as pedestrian-oriented or automobile-oriented. Current and future attractions both within and nearby the neighborhood were then added. With these key components in place, the expected flow of traffic was drawn and key intersections were identified. Finally, points at which the Sea Research Ltd. wayfinding devices should be implemented were identified.

Findings

The following are key entrances, intersections and points of attraction in South Lake Union:

Pedestrian-oriented entrances:

- Bottom of Lakeview Boulevard bridge as it intersects with Eastlake Avenue
- Bottom of Denny Way bridge as it intersects with Eastlake Avenue
- Streetcar stops
- Intersection of Thomas Street and Aurora Avenue (if Aurora Avenue is sunken) OR the bottom of Thomas Street pedestrian bridge (if current Aurora Avenue configuration remains)
- Top of pedestrian underpass at Mercer Street and Aurora Avenue

Automobile-oriented Entrances:

- Intersection of Westlake Avenue and Highland Street
- Intersection of Fairview Avenue and Eastlake Avenue
- Intersection of Lakeview Boulevard and Eastlake Avenue
- Intersection of Aurora Avenue and Thomas Street
- Intersection of Aurora Avenue and Mercer Street
- Intersection of Denny Way and Eastlake Avenue
- Intersection of Denny Way and Westlake Avenue
- Intersection of Denny Way and Aurora Avenue

Major Area Attractors:

- South Lake Union Park
- REI
- 2200 Westlake/Whole Foods
- Denny Park



Minor Area Attractors:

- Waterfront restaurants at the intersection of Fairview Avenue and Minor Avenue
- Cascade Playground/P-Patch
- Fred Hutchinson Campus

Key Intersections:

- Fairview Avenue at Valley Street, Mercer Street, Republican Street, Thomas Street, and Denny Way
- Thomas Street at 9th Avenue, Terry Avenue, and Eastlake Avenue

Recommendations

All pedestrian-oriented entrances are priority points for kiosks. They can inform visitors of what is available ahead in addition to providing directions to those attractions. The major area attractions themselves also require kiosks, as visitors need to know where to go next after visiting one of the sites.

The minor area attractions, automobile-oriented entrances and key intersections are ideal for directional finger signs. Such signs are guiding posts that could be utilized by both pedestrians and automobiles. They are visible to automobiles as a quick reference. Concurrently, they would also include a directional to the nearest kiosk for detailed information for pedestrians.

Please see the Center City Wayfinding Study (Sea Research Ltd.) for further details on these wayfinding tools.

In addition, the gateways and border markers detailed in the connectivity section



Wayfinding tool locations

of this chapter are key enhancers of both connectivity and wayfinding. Their implementation should be considered a benefit to both of these sectors and integrated with the wayfinding system.

Finally, wayfinding will be greatly enhanced if SLU is visually distinctive from surrounding neighborhoods. If a car is on an arterial such as Mercer Street or Denny Way, it can travel into SLU without the driver noticing that he/she has entered a different neighborhood. Therefore, a subtle but clear difference in the SLU environment is necessary to alert the traveler, especially the automobile traveler, that he/she has entered SLU. Changing the color or design of the street signs in the area will create an obvious distinction that is quickly understood. Furthermore, a quick glance at the already proliferate street signs will clue the traveler without him/her having to stop and read.

Not all neighborhoods in Seattle are blessed with distinctive architecture, as in Pioneer Square and the International District. Flags and banners create distinction between neighborhoods while lending a festive look, but these decorations are artificial characteristics. Making the street signs of each neighborhood a different color is a more subtle way to enhance the difference between neighborhoods and increase wayfinding throughout the city.

Walkability

Research has found that there is a correlation between high rates of obesity, decreased physical activity and auto-oriented types of urban development. In fact, people living in walkable neighborhoods are two times more likely to be physically active than those who live in the less walkable areas. It has also been argued that in contrast to physical activity promotion programs, which typically have short-term effects, building walkable neighborhoods can be expected to have relatively permanent effects. This becomes particularly relevant when considering the alarming rate of obesity in the United States—over 20% of American children are overweight or obese. Additionally, walkable communities are more compact and people tend to drive less, which makes them more sustainable. Finally, walkable neighborhoods have stronger communities, a higher quality of life and higher housing values due to accessibility to services.

Given the fact that walkable neighborhoods have many positive impacts on their residents, it is important to quantify and analyze walkability in South Lake Union. The goal of this analysis is to identify the most and the least walkable areas in

SLU, so that new development and services are integrated to better serve the community.

Methods

Geographic Information Systems (GIS) Network Analysis was used to identify parcels in SLU that are within walking distance of a given set of services using the existing street network. Walking distance was defined as 0.5 miles or roughly a ten-minute walk. Research has shown that people are most likely to walk to destinations that are under 0.5 miles away .

GIS Network Analysis first calculates what is known as service areas for the given distance and then selects the parcels that intersect with the resulting service areas. Service areas are identified as the region within a certain distance from a site using the existing street network (for example, the region within half a mile of a shopping center).

In this study, service areas represent the area a person would cover by walking half a mile from a given site in every possible direction using the street network. Service areas are represented by polygons that can be used to identify how many parcels, how much land, how many people, etc., are within them. Figure 3.1 shows a service area (blue polygon) for a given destination represented by the red star.



Figure 3.1. Example of service area around a given destination

This analysis was conducted for the following services: banks, churches, community centers, health centers, libraries, groceries stores, p-patches, playgrounds, post offices, public and private schools, bars, restaurants and theaters. Following are maps for each of the services; parcels within half a mile of the given destination are highlighted in yellow. Steep slopes are also included, highlighted in orange, to show areas that may be difficult for pedestrians to travel.

Parcels within half a mile of a Bank

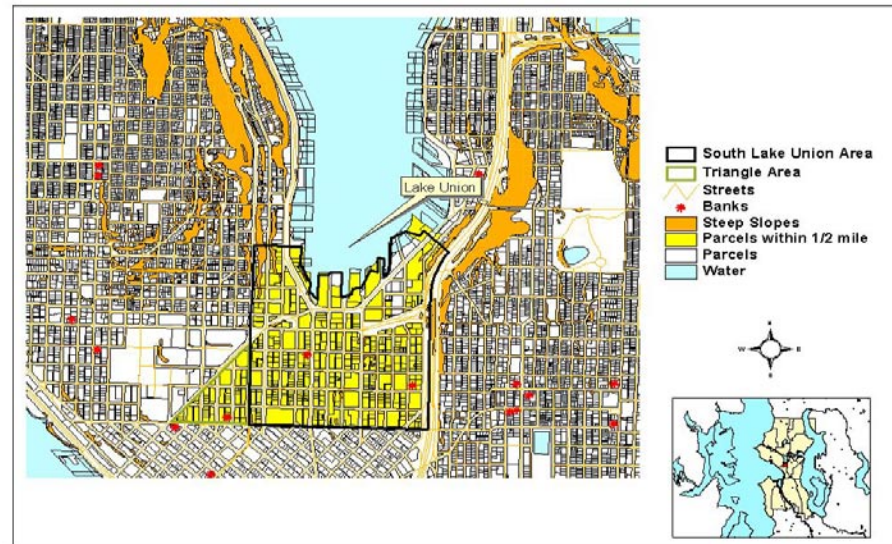


Figure 3.2. Banks (83% parcels are within one half mile)

Analysis



Parcels within half a mile of a Church

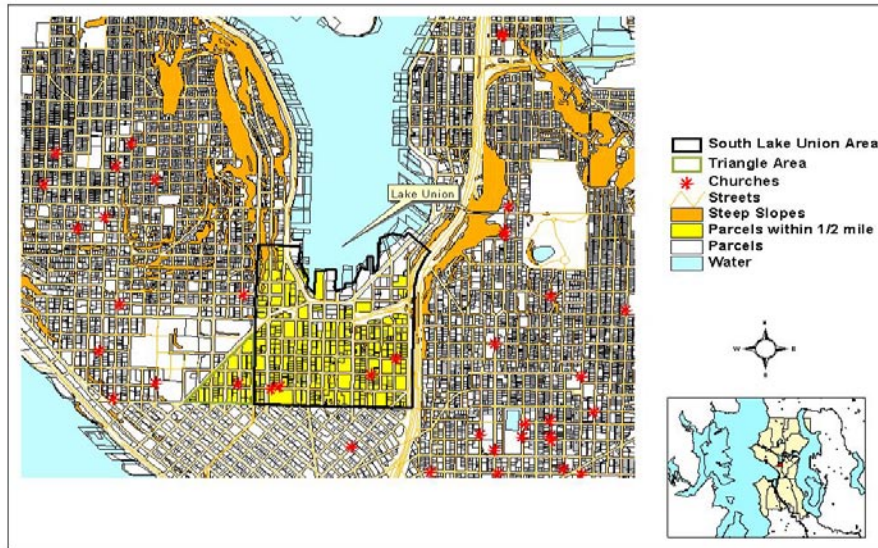


Figure 3.3. Churches (89 % parcels are within one half mile)

Parcels within half a mile of a Health Center

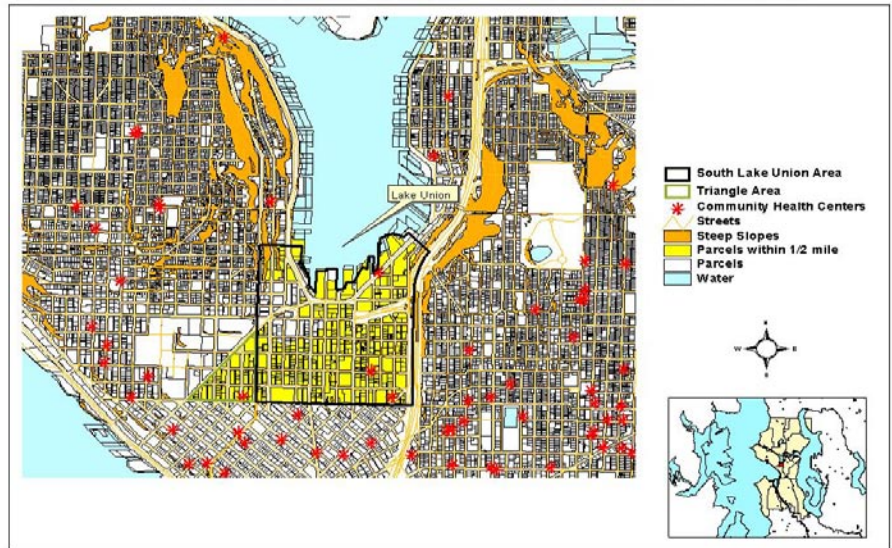


Figure 3.5. Health Center (91% parcels are within one half mile)

Parcels within half a mile of a Community Center

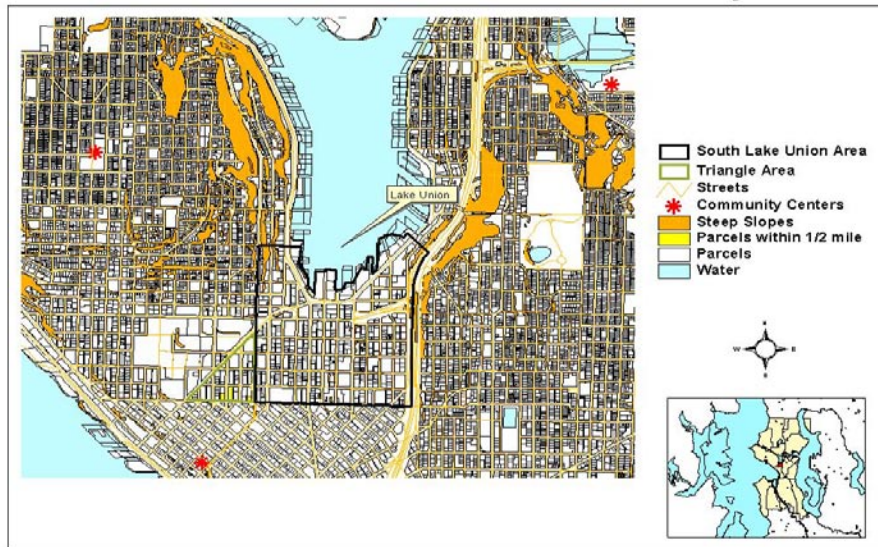


Figure 3.4. Community Centers (1 % parcels are within one half mile)

Parcels within half a mile of a Library

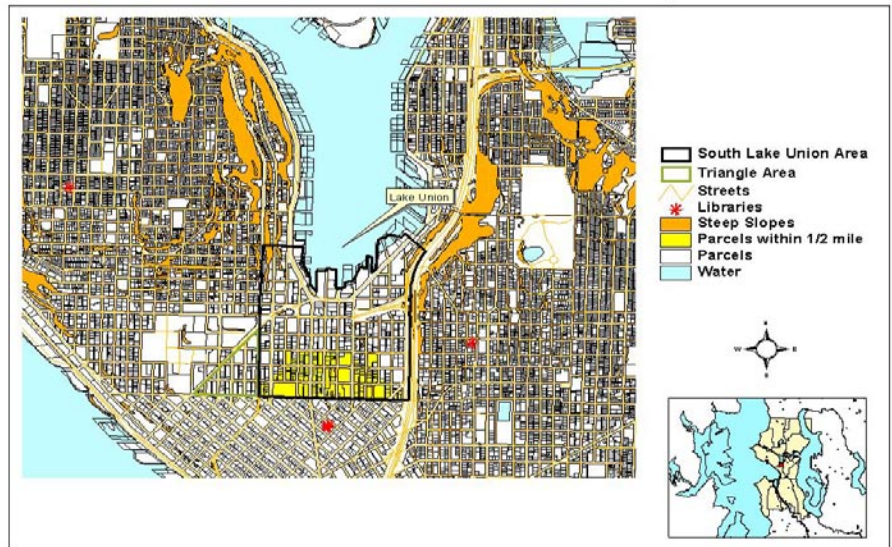


Figure 3.6. Libraries (28 % parcels are within one half mile)

Parcels within half a mile of a Grocery Store

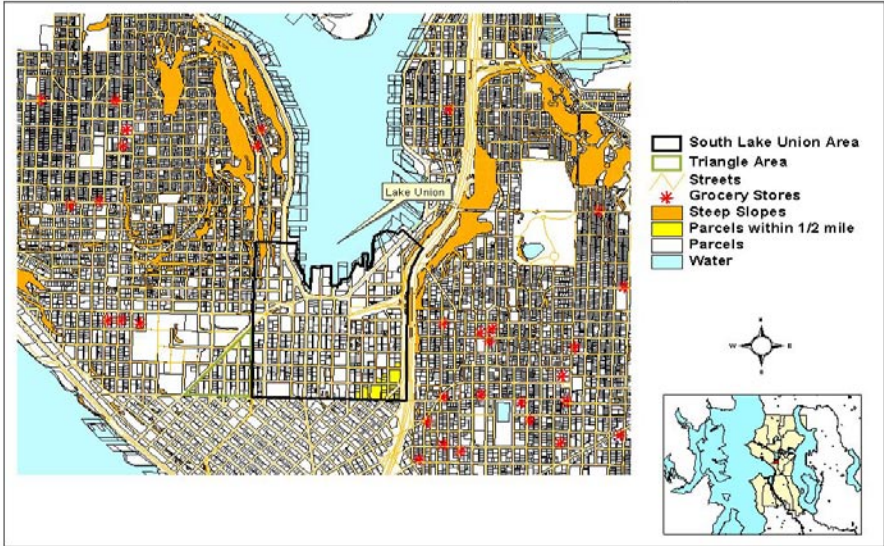


Figure 3.7. Grocery Stores (5 % parcels are within one half mile)

Parcels within half a mile of a Playground

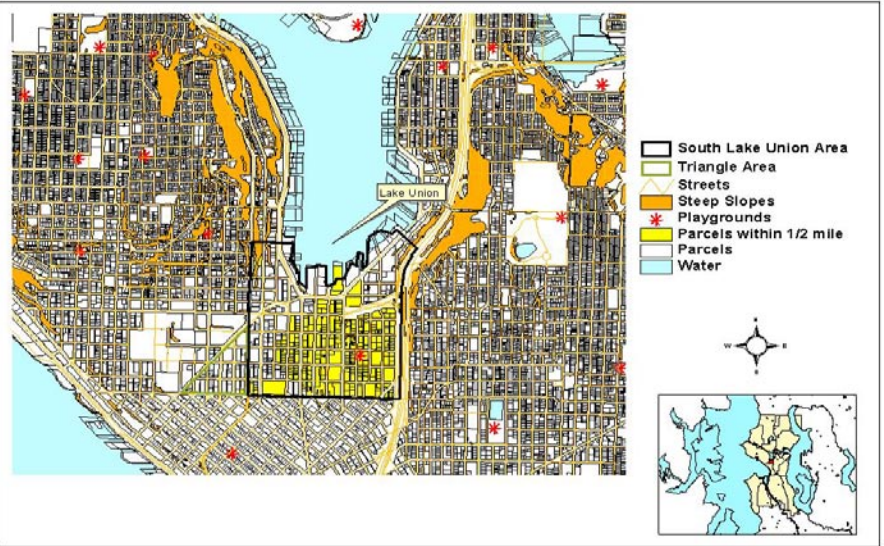


Figure 3.9. Playgrounds (59% parcels are within one half mile)

Parcels within half a mile of future Whole Foods

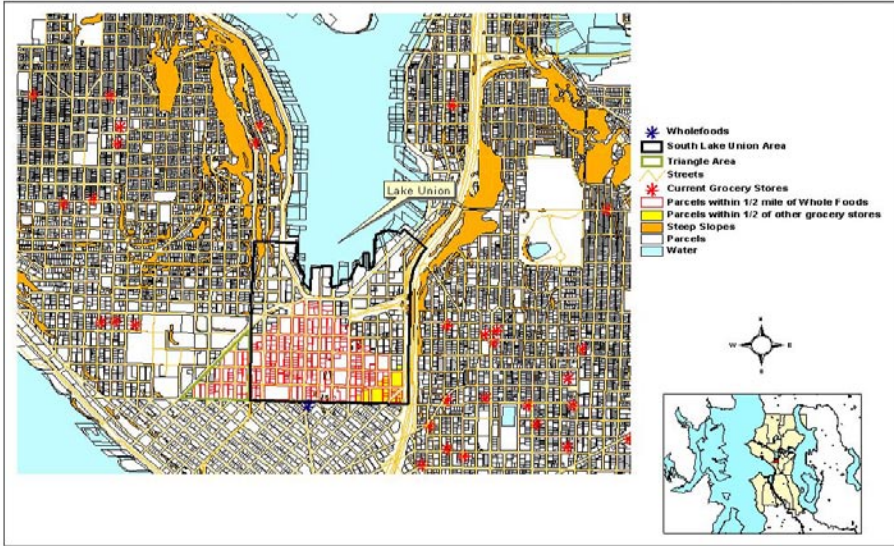


Figure 3.8. Future Whole Foods-parcels in red. (47% parcels within one half mile)

Parcels within half a mile of a P-Patch Garden

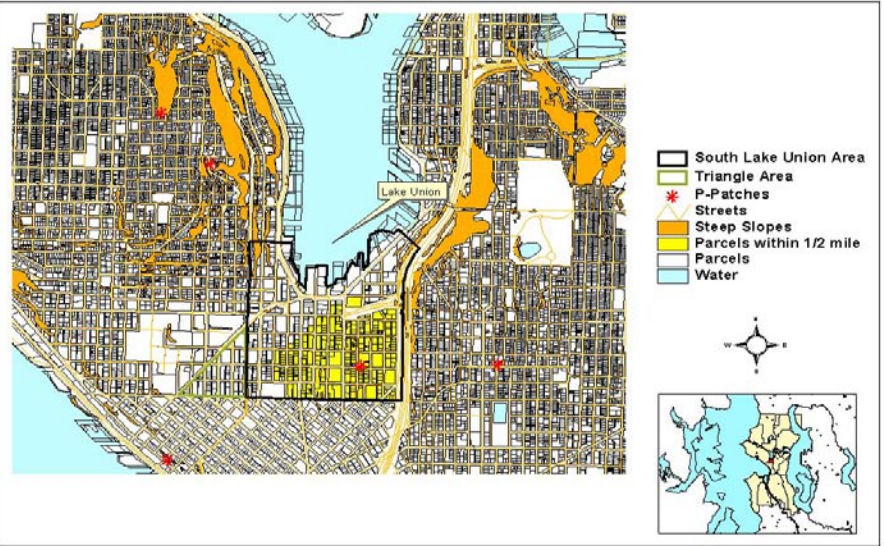


Figure 3.10. P-Patch Gardens (52% parcels are within one half mile)

Parcels within half a mile of a Post Office

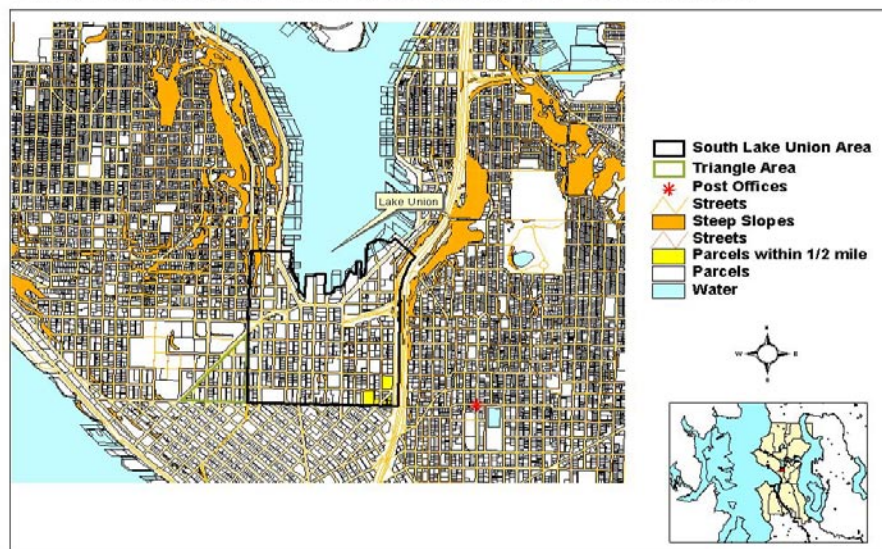


Figure 3.11. Post Offices (2 % parcels are within one half mile)

Parcels within half a mile of a Private School

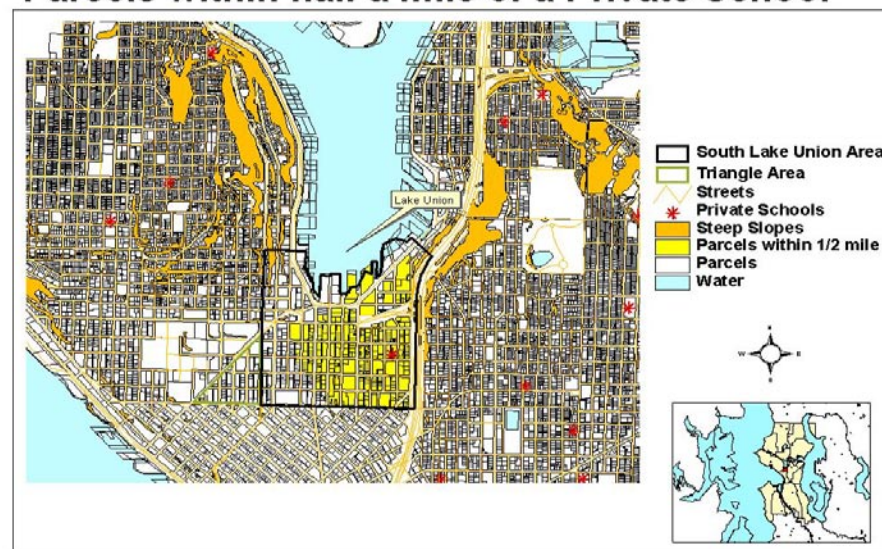


Figure 3.13. Private Schools (54% parcels are within one half mile)

Parcels within half a mile of a Bar or Restaurant

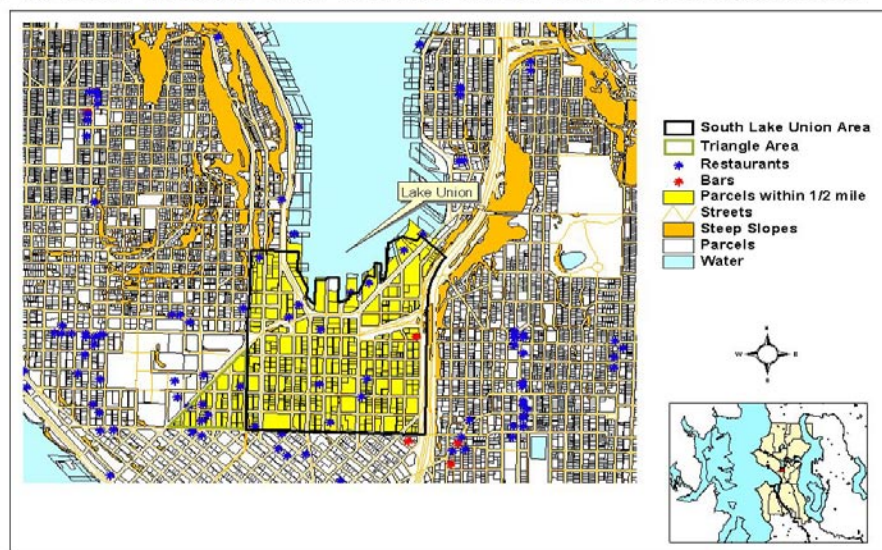


Figure 3.12. Restaurants (99% parcels are within one half mile)
Bars (14% parcels are within one half mile)

Parcels within half a mile of a Public School

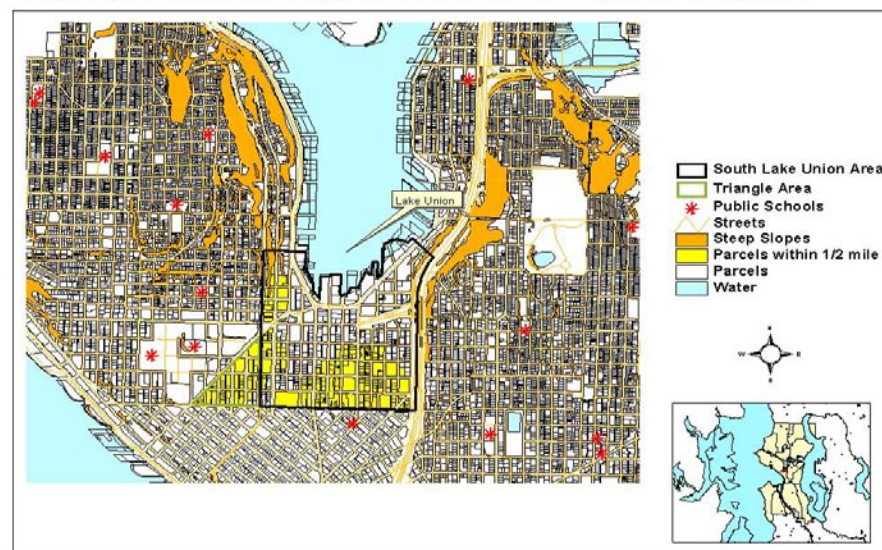


Figure 3.14. Public Schools (48% parcels are within one half mile)

Parcels within half a mile of a Theater

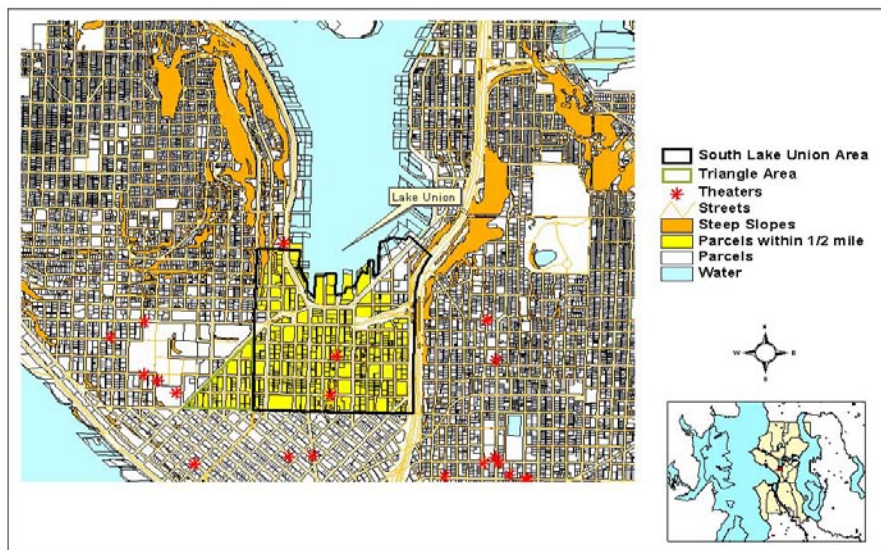


Figure 3.15. Theater (92 % parcels are within one half mile)

Recommendations

Based on the results of the analysis, it is advisable that the following services be placed within South Lake Union

- A community center. There is no community center in SLU. Only 1% of the parcels are within half a mile of a community center, which is located in Belltown.
- A new playground and a new p-patch garden should be placed in the western part of SLU, since the only playground and p-patch in SLU are located in the eastern part. Potentially they could be placed within Denny Park and/or South Lake Union Park.

The following services are available in adjoining neighborhoods and can be shared by SLU residents. If, however the population of SLU exceeds the feasibility of joint usage between neighborhoods, these services would be needed in SLU.

- A library. There is no library in SLU-- 28% of the parcels are within half a mile of a library, the nearest is in Belltown.
- A post office. There is no post office within SLU. Only 2% of the parcels are within half a mile of a post office, the nearest of which is located in Capitol Hill.
- A public school. Currently there is no public school within SLU. There are a few in the surrounding neighborhoods, with 48% of the parcels being within half a mile of a public school. Population within SLU is forecasted to increase by 8000 people in the next twenty years. Biotech related communities in other parts of the country (ex. San Diego, Bellevue, San Jose, etc.) have higher numbers of families that what is found currently in SLU. One can predict that the number of families will eventually increase sufficiently in the area to justify adding a new school.



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Streetscapes



Executive Summary

Although currently dominated by the automobile, South Lake Union has great potential to enhance its appeal to pedestrians. Focusing on the pedestrian has the potential to attract new business, tourism, and residents, while enhancing the neighborhood character for current residents and businesses. With close proximity to Seattle Center, Downtown Seattle, Capitol Hill, and Queen Anne, South Lake Union is in an optimal position to emerge as a neighborhood for the pedestrian. Combined with the large investments planned for the area, a focus on walkability and human-scaled urban form will ensure the vitality of this neighborhood for several generations.

Fostering a vibrant pedestrian neighborhood requires investment in the pedestrian environment. The purpose of this paper was to look into ways of enhancing the streetscape and public spaces in order to transform South Lake Union into a pedestrian-friendly neighborhood. Much legwork has already been done in this regard, although it exists in small pockets of information scattered throughout several documents. These documents have been summarized for the reader's convenience later in this paper. Local, regional, and national case studies were also consulted for transferable ideas.

After consulting these existing sources and undertaking primary research through fieldwork, prioritized pedestrian corridors were identified and depicted in graphic form via GIS-based maps. The most prominent corridor identified was the East-West connection of Thomas Street, which would facilitate connectivity through identified nodes and gateways within and to the neighborhood. Remediation measures were also proposed for Denny Park, a valuable swatch of open space that has a rich heritage but is currently underutilized as an urban park. It was concluded that injecting recreational uses into the Park was the most immediate way to improve its function as open space.

It is hoped that this section will serve as the starting point for renewed community discussions about improving pedestrian mobility within South Lake Union.

Purpose

The purpose of this section is to look into ways of enhancing the streetscape and public spaces in order to transform South Lake Union into a pedestrian-friendly neighborhood. This goal is in line with the desires expressed by several stakeholders

within the neighborhood, including SLUFAN, the Cascade Neighborhood Council, the City of Seattle Parks Department, Mayor Greg Nickels, Vulcan Real Estate, and the City of Seattle Department of Planning and Development.

Methods and Processes

Several principles from classic planning texts were critical in informing our work and guiding our ideas. These principles have been summarized in Appendix A and were pulled from the following books:

The Death and the Life of Great American Cities, by Jane Jacobs

Jacobs writes about what makes streets safe or unsafe; about what constitutes a neighborhood and what function it serves within the larger organism of the city; and about why some neighborhoods remain impoverished while others regenerate themselves. Key to the importance of her work was Jacobs' reliance on empirical research and observation. She outlines four necessary generators of city diversity, the curse of border vacuums, and provides the ingredients of what makes for successful open space.

A Pattern Language, by Christopher Alexander

This book offers a practical language for building and planning. The reader is given an overview of some 250 patterns that are the units of this language, each consisting of a design problem, discussion, illustration, and solution. By understanding recurrent design problems in their environment, readers can identify patterns in their own design projects and use these patterns to create a language of their own.

The Social Life of Small Urban Spaces, by William Whyte

This book is based on observations made about Manhattan open spaces between 1970-1980 from Whyte's Street Life Project. Since 1961, NYC had been giving incentive bonuses to builders who provided plazas. Some plazas, such as the one in front of the Seagram's Building, were well-used, while others were not. The goal was to find out what made for popular open space, and to use these findings to update the zoning ordinance.

After reviewing these texts, the next step was to understand the goals and desires for the neighborhood as they relate to the pedestrian environment. This required a thorough review of plans for the study area: the South Lake Union Neighborhood Plan, the South Lake Union Design Guidelines, the South Lake



Union Transportation Plan, the Seattle Parks Department's North Downtown Parks Plan, the Terry Avenue North Street Design Guidelines, the West Lake Union Improvement Project, and the Mercer Corridor Project. The City of Seattle's website was also reviewed regularly, particularly the Parks Department webpage and Mayor Nickel's webpage on South Lake Union.

After summarizing and synthesizing these documents, case studies of streetscape and open space improvements within Seattle were reviewed for transferable ideas. These included Vine Street, SEA Streets, High Point Project, the Denny Triangle Green Street Plan, the Ballard Municipal Center Master Plan, and the policies spelled out in the DCLU Director's Rule 11-93. Regional and national examples were also consulted for useful suggestions and were selected according to the following criteria: (1) cost-effectiveness, (2) sustainable features, and (3) location commonalities with South Lake Union (i.e. size, form, natural features). Lessons learned and the key elements of these implementation strategies were then summarized and were relied on in the creation of maps and illustrations.

Site reconnaissance was undertaken on multiple occasions to assess existing street and sidewalk conditions, to map out critical nodes, and to understand how users interacted with Denny Park.

At the conclusion of this research process, pedestrian corridors in South Lake Union were identified and depicted in graphic form via GIS-based maps. Suggestions for how to make Denny Park a more successful open space and connect it to the neighborhood were also developed.

Background Research

Review of South Lake Union-related plans

South Lake Union Neighborhood Plan

The South Lake Union Neighborhood Plan, created in 1998, signifies the vision for the neighborhood established by its stakeholders at that time. With regard to pedestrian oriented policies, it calls for an active reconsideration of pedestrian conditions. The plan specifically highlights the need for improvement of the streetscape on Mercer and Valley Streets, among others. The importance of pedestrian connections is also demonstrated by a desire to enhance pedestrian bridges/underpasses and improve at-grade crossings.

With regard to open space, the plan sets a goal of one acre of open space for every 100 residents. This would be met through pocket parks, accessible rooftops, and designation of certain corridors as green streets. Density bonuses are mentioned as a method to help promote more open space by way of pocket parks. It is also recommended that the Park Administrative Offices that are currently located in Denny Park be relocated and the building possibly be re-used as a Community Center.

South Lake Union Transportation Study

The South Lake Union Transportation Study, created in 2004, goes beyond the Neighborhood Plan in calling for pedestrian improvements. Spelled out in the plan is the goal to improve safety for all transportation modes by providing safe pedestrian crossings and good access to transit. Through an improved streetscape design, a safe and active pedestrian environment, and improved non-motorized access to South Lake Union Park, the study anticipates increased economic vitality, neighborhood livability, sustainable development, and an enhanced quality of life. The study highlights neighborhood segments with a poor level of service and poor pedestrian accessibility. In particular, it references blocks where there are no sidewalks or the sidewalks are in inadequate condition. Lastly, the plan points to the dearth of landscaping on high volume streets.

South Lake Union Design Guidelines

The ideas generated in the South Lake Union Neighborhood Plan and Transportation Study were expanded upon in creating the South Lake Union Design Guidelines. This document calls for creation of gateways and use of such tools as streetscaping, landscaping, artwork, and signage. The gateways include the intersections of:

- Westlake Avenue North & Denny Way
- Westlake Avenue North & 9th Avenue North
- Dexter Avenue North & Mercer Street
- Fairview Avenue North & Valley Street
- Fairview Avenue North & Denny Way
- Fairview Avenue North & Mercer Street

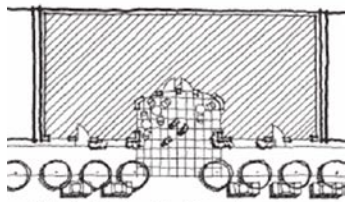
In addition, the Plan identifies centers of activity, referred to as "Heart Locations," defined as:

- Cascade Park
- South Lake Union Park
- Denny Park

- Harrison Street
- Terry Avenue North
- Westlake Avenue North

The identification of gateways and centers of activity is further expanded upon in maps at the end of this section. While the Neighborhood Plan and Transportation Study called for general pedestrian improvements, the Guidelines call for particular improvements including: pedestrian lighting, public art, special paving, landscaping, and additional public space provided by curb bulbs and entry plazas. In addition to streetscape improvements sought through public/private partnerships, the plan speaks of the desire to involve the private sector in enhancing the pedestrian environment via configuration of retail space to spill out onto the sidewalk where applicable.

This idea of blending the public and private space involves designing the entries of residential buildings to enhance the character of the streetscape with the possible use of elements such as small gardens and stoops to create a transition between the spaces.



(Source: *South Lake Union Design Guidelines*, p. 9)

Like the Transportation Study, the Design Guidelines also call for flexibility in development in exchange for not only open space, but also for things like curb bulbs, street furniture, water features, and landscaping that meets Leadership in Energy and Environmental Design (LEED) criteria.

Terry Avenue North Street Design Guidelines

The Terry Avenue North Street Design Guidelines, completed in 2005, speak to the opportunity of creating a streetscape where pedestrians have priority over automobiles. The Terry Avenue Guidelines are intended to supplement the South Lake Union Guidelines. They refer to Terry Avenue's definition in the South Lake Union Design Guidelines as a Heart Location. Additionally, the guidelines note sustainability as an important value in South Lake Union.

The initial idea for Terry Avenue North was to borrow from the Dutch woonerf street design and blend the sidewalk and street, but it was concluded to be infeasible due to regulatory constraints. Goals outlined in the design guidelines included promotion of pedestrian mobility and reduced vehicular speed, treating the sidewalk and roadway with similar paving, using sustainable materials,

emphasis of safe interaction between transit modes, using topography to drain surface stormwater, reduction of impervious surfaces, and choosing landscaping compatible with Seattle's climate. The Guideline recommends specific types of materials and treatments related to brick pavers, bollards, pedestrian-scale lighting, and trees. This document also references integration of the future streetcar into the design of Terry Avenue North, which will run south along the street between Valley Street and John Street.

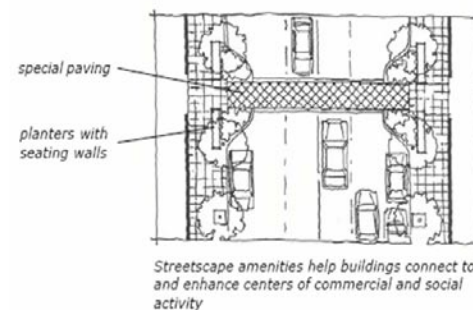
Review of Seattle-related plans

Denny Triangle Neighborhood Green Street Guidelines

The Denny Triangle Neighborhood Green Street Guidelines, developed in 2001, bear relevance to South Lake Union, as the two are adjacent neighborhoods. Like South Lake Union, Denny Triangle is experiencing growth that will place further demands on open space and pedestrian circulation. The Guidelines call for a variety of open spaces that are to be connected through a pedestrian network. These open spaces are to provide exposure to the sun and ample seating. The Guidelines also outline different treatments for transit, mixed-use, and residential districts.

Ballard Municipal Center Master Plan, Design Guidelines, 2001

Similar to the plans for South Lake Union, the Ballard Master Plan emphasizes the importance of walking as a transit mode. Two primary tools for doing so are mid-block crossings and streetscape continuity, which are ideas particularly relevant to South Lake Union.



(Source: *South Lake Union Design Guidelines*, p. 18)

The intent of the guidelines, similar to those for South Lake Union, is to provide the right balance between rigidity and flexibility to future developers working in the neighborhood. Many of the ideas in the Plan have been carried out, thus providing a great example of what can be done with a successful plan and vision. South Lake Union can take a page from the Ballard Neighborhood's community-wide

collaboration efforts, which can serve to achieve community buy-in regarding streetscape improvements.

Vine Street, Growing Vine Street Revisited, 2004

This guidebook summarizes the history of greening Vine Street and offer direction on where Vine Street is headed in the future. The main idea behind greening Vine Street was to add open space and create a street park in an urban setting. A major bonus was the recycling of stormwater to use in irrigating the Belltown P-Patch.

This is directly applicable to the identified South Lake Union goal of finding unique ways to meet the need for open space within the neighborhood. One of the simplest treatments in the guidebook, which has great potential for use in South Lake Union, is the use of portable plantings. The idea is that while awaiting street improvements, portable planter boxes could be used. In addition, the idea of linking green streets with alleys is brought up in this report, something that other guidelines and reports had not introduced. Like the Terry Avenue Guidelines, this guidebook includes a detailed index of plants that should be used. In addition, the guidebook is rich with renderings that give a clear idea of what Vine Street will look like at full build out. It also speaks of the dependency on grants and on property owners for funding to carry out the project. A problem that is brought up in this guide and several other reports is the lack of agency guidance in developing green street parks, which should be an important consideration as progress is made in South Lake Union.

Street Edge Alternative (SEA Street) Project

The SEA Street project was undertaken by Seattle Public Utilities in a North Seattle neighborhood near Carkeek Park. The goal of the project was to reduce impervious surfaces to 11% less than a traditional street and provide surface water detention in swales. The re-design of the right of ways turned once linear streets into meandering ones that help to slow traffic. Two years of monitoring show SEA Street has reduced stormwater volume leaving the project area by 98%. Additionally, cost data provided by Caitlin Evans of Seattle Public Utilities shows that while development of the initial pilot project exceeded that of a traditional street design, subsequent projects have come in at 70% of the cost of a typical street design. Having the sidewalks flush with the road allows the narrower-than-average streets to accommodate large service trucks or emergency vehicles. The plantings were installed by Seattle Public Utilities. Residents are responsible for maintenance. While this project was implemented in a suburban environment, elements could be borrowed and would relate to the idea of reducing storm water runoff that appears in some of the previously reviewed plans. This project has the greatest applicability for non-arterial and low-volume streets. While the level of treatment undertaken at SEA Street may not be a priority for South Lake Union because of the minimal runoff that makes it directly into Lake Union untreated,

technologies that can slow water down before it enters the pipe system are very appropriate for the study area.

High Point Project

The High Point Project is a partnership between Seattle Public Utilities and Seattle Housing Authority to integrate a natural drainage system in a mixed-income housing redevelopment. Useful for application in South Lake Union are the use of swales within the planting strips of the street right-of-way, which are used both to filter water and to provide a buffer of green for pedestrians.

DCLU Director's Rule 11-93

The Director's Rule 11-93 established the Green Streets Design Guidelines and Implementation Process. Although Seattle is de-emphasizing and plans to eventually phase out the term 'green streets,' the Director's Rule 11-93 provides information that is still relevant and useful in South Lake Union. The Rule establishes the definition of green streets as is used today, but without the focus on sustainability that has recently been applied to the term. Four different types of green streets are established. Green Street- Type 1 prohibits traffic, while Type 2 and 3 provide for different levels of traffic. Type 4 provides for limited or no traffic. The guideline itself does not provide for any specific treatments, just general directives. The most important aspect of the Director's Rule is its detail of the complex permitting process for green streets. Still, little guidance is given, and it is evident in green street plans throughout the city that a clear plan does not exist, as the definition of green streets varies, and is often used interchangeably with the term 'pedestrian oriented streetscape' in proposals.

Potlatch Trail, Proposed 2001 (aka Bay to Lake Trail)

The Potlatch Trail plan emphasizes pedestrian and bicycle mobility in conjunction with a vibrant streetscape. Based upon the desire to restore the route used by Native Americans in the 1800's, the trail would connect Elliott Bay with South Lake Union Park. The plan also includes the idea of integrating adjacent P-patches. In exchange for density bonuses and other incentives, developers are called on to include unique lighting, paving and seating. The ideas expressed in the Potlatch trail are directly applicable because part of the trail connects to South Lake Union. In addition, many of the ideas in the plan are useful for planning connections between open space and the continuity of streetscape design.

West Lake Union Improvement Project

This project began in early 2002 and has reached its final stages. Generally, the project addresses drainage, street, parking and power distribution improvements along Westlake Avenue North between the Fremont Bridge and the south end of Lake Union. Although the project does not extend into SLU, it recommends extending the project's vision into SLU. The proposed addition of a streetcar on Westlake Avenue would be appropriately complemented by the street design continuity of the West Lake Union Improvement Project.

Case Studies

Charlottesville, Virginia

Charlottesville, Virginia, presents a vital lesson in streetscape improvements. After undertaking significant streetscape improvements, including a pedestrian-only mall, anticipated increases in street activity, consumer spending, and overall economic performance failed to materialize:

“The connecting cross-streets that link Main Street to adjacent Water and Market streets are a pedestrian dead zone, and prevent the energy of the Main Street from spreading to these parallel routes...The City is apparently considering re-opening and re-developing some of the side streets...This could be positive step

in encouraging businesses to locate on these streets, while still protecting the pedestrian character of [Main Street], itself.”



Charlottesville uses directional signage for businesses located on nearby cross-streets adjacent to the Main

To borrow from this experience, the development of isolated, unconnected pedestrian corridors in South Lake Union is not recommended. Rather, a grid of pedestrian corridors is necessary to establish a vibrant pedestrian community.

Boston, Massachusetts

Boston sought to encourage transportation alternatives through a Guaranteed Ride Home Program. Employers provide free rides in an emergency to all employees who typically take alternative modes of transport. Boston also worked to improve its pedestrian atmosphere by burying utilities, instituting new

development requirements for bike racks and mandating a minimum percentage for fenestration of street level facades.

Cleveland, Ohio

Cleveland orchestrated a connectivity improvement program to connect its waterfront with the surrounding neighborhoods. This allowed for a walking path to be constructed around the inner harbor and offer space for family-oriented concerts and other activities. Cleveland also developed a policy to encourage short trips to the downtown lakefront by providing on-street parking.

Of particular relevance to South Lake Union, Cleveland mandated that the streetlight illumination supplied by the public utility companies be limited to two designs. This effort

to provide visual continuity was designed to enhance the downtown streetscape. Guiding the design selection, it was desired that this lighting system emphasize Cleveland's strengths as a cultural center while honoring its architecture, history, art and design. It was expressed that materials for walkways also be of a design and scale compatible with the surrounding buildings and streetscapes.



Cleveland's waterfront allows connections to surrounding neighborhoods



In South Lake Union, specializing lighting has already been designated for Terry Avenue North and is currently in use along the streetscape frontage of the Rosetta Building. To provide visual continuity, this lighting treatment should be extended along the Thomas Street East-West Corridor (this corridor is further outlined in the Analysis and Remediation portion of this section).

Hickory, North Carolina

Hickory sought to encourage private streetscape improvements throughout its urban core. The planning department developed a policy where it would pay for planting of street trees and/or installation of pedestrian-friendly street lights in the public streetscape corridor in exchange for property owners agreeing to install landscape improvements on adjoining private property. At the same time, they implemented a policy of eliminating surplus driveway aprons and curb cuts in exchange for private landscape improvements, which also increased the available on street parking for customers of local business owners. Lastly, Hickory explored the feasibility of installing brick crosswalks, improved sidewalks, and other pedestrian improvements in exchange for private sector guarantees of investment.

Kitchener, California

The Kitchener Planning Department reduced minimum front yard setbacks in an effort to foster a friendly pedestrian atmosphere. They also specified that retail have display windows on the street-front façade, and implemented a fenestration requirement similar to Boston's. At the same time, they sought to preserve the solar access envelope by requiring tall buildings to incorporate setbacks such that the shadow effect would be avoided. To provide a proper sense of enclosure, their code specifies that buildings in the urban core be a minimum of four stories. Lastly, Kitchener limited the allowed off-street parking for new developments in pedestrian corridors in an effort to limit the vehicular dominance in those areas.



Example of walkways made of materials compatible with surrounding buildings

Portland, Oregon

Portland has undertaken a sincere attempt to improve its pedestrian atmosphere. Upon review, new development can be required to provide new street construction, frontage improvements, sidewalks, streetlights, traffic signals, and signing pavement markings.

Portland also has an active policy to encourage green streets. It has attempted to define a holistic approach to green streets, recognizing that “ecological health (is) found in an integrated approach to urban development acknowledging needs for a healthy habitat for humans and other species, and the requirements of modern

urban living.” To strive towards these goals, the City has laid out a comprehensive definition of green streets as streets that:

- integrate a stormwater management system within the street right-of-way,
- reduce the amount of stormwater runoff,
- are visible elements of the “green infrastructure” system,
- use trees for stormwater and temperature mitigation,
- ensure street has least impact on surroundings, especially at locations where it crosses a stream or other sensitive area, and
- require a more broad-based alliance for its planning, funding, maintenance and monitoring.

Seeking to develop streets more sustainably, the City has recently received grant money to develop a number of pilot projects. In one such development, Portland is looking to reengineer and undertake a “green street rebuild” on a street that is currently an asphalt-paved road with no sidewalks or bike lanes. The hope for this street is that it will be redeveloped with numerous sustainable street design features.

Vancouver, British Columbia

To increase the amount of streets that embrace sustainability principles and improve water tables, Vancouver promotes reduction of curbs and gutters. This permits more rain water to drain into the ground and allows the water tables to recharge, which in turn increases creek flows and enhances fish habitat.

Vancouver also promotes street beautification through the street gardens sponsorship program. Citizens or agencies sponsor and maintain street gardens in traffic circles and corner bulges. Individuals or groups can select and maintain plants. Thus, traffic calming measures foster community identity while improving pedestrian safety.

To reduce the amount of asphalt and impervious surface in alleyways, South Lake Union could borrow from Vancouver's Country Lanes Program, which is a sustainable alternative to regular lane paving in alleys. As their name suggests, Country Lanes are structured like two wheel ruts in old country roads. They feature two narrow driving strips and a structural component with grass. The City has now developed three of these two-wheel paths and reports them well suited for residential lanes and back alleys. The Lanes are designed to provide maximum area for rainwater absorption while still providing a usable driving surface.

An additional element that has proven useful in Vancouver's efforts to develop

country lanes is “structural soil.” This product, developed by Vancouver’s engineering department, is a new soil that is a mixture of gravel and soil/compost. It will allow plants to grow, but was designed to handle heavy loads such that it will not settle under the weight of cars and trucks.



Country Lane in Vancouver

Similar to the opportunity presented by the potential redevelopment of South Lake Union, Vancouver chose to redevelop its downtown in a way that promoted mixed-income development. Very little of this development was subsidized. Instead, growth was expected to help pay for growth. Furthermore, Vancouver required developers of the megaprojects to provide a variety of public goods, including many elements of sustainable street design such as

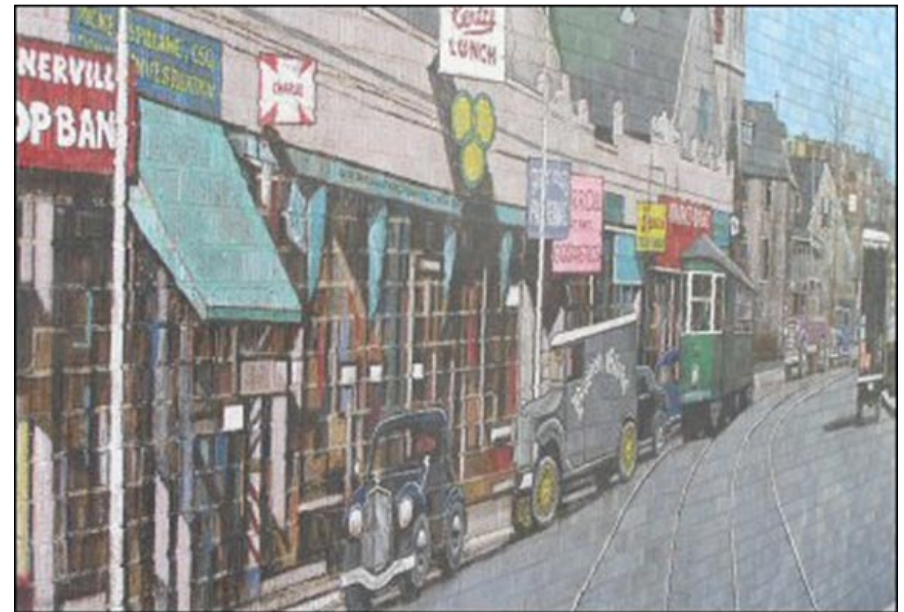
waterfront walkways, parks, marinas, and other public amenities. As Gordon Price, former Vancouver city councilor noted, “All this makes the developer’s product attractive. Public benefit, in short, adds private value.”

Other

In an effort to improve the pedestrian streetscape, several cities within Washington, such as Olympia, Des Moines, and Bellingham have implemented community art programs to eliminate blank walls. These same cities have undertaken the added cost of pervious concrete (estimated at \$6-\$9/square foot) that allows water to pass through the material to a gravel layer underneath.



Beautified traffic circle, maintained by local residents

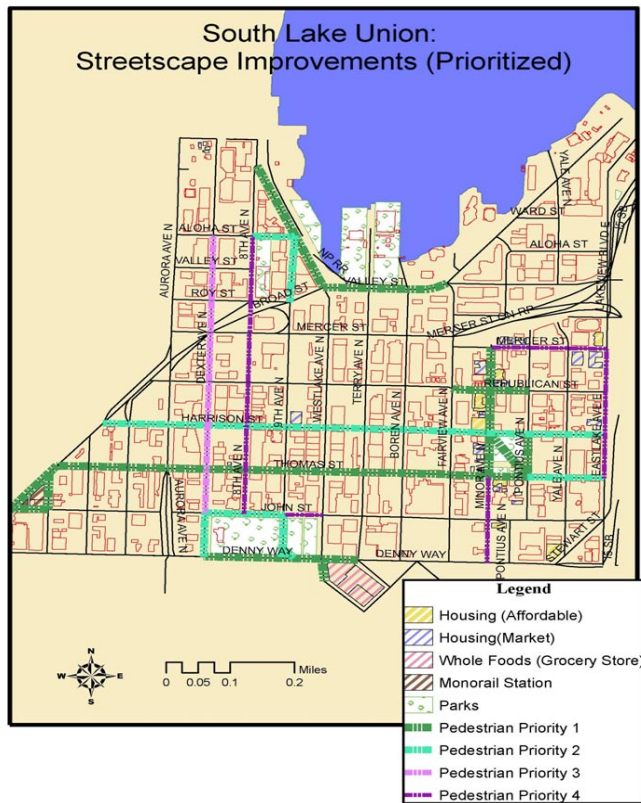


Using Art to eliminate blank walls

Analysis and Remediation

Pedestrian Corridor Identification Methodology

The purpose of identifying pedestrian corridors is to connect important nodes of activity along the most logical route, thereby fostering pedestrian activities and making SLU a pleasant place to work, visit and live. All recommendations are depicted on the Streetscape Improvements Map.



Source: Source: University of Washington, College of Architecture and Urban Planning, Department of Urban Design and Planning, South Lake Union Studio, Spring 2005

Several of the aforementioned mentioned documents that deal with South Lake Union note the importance of pedestrian corridors and identify where they should be placed. For convenience, these documents have again been referenced below:

Designated & Proposed Green Street Improvements (Parks Department)

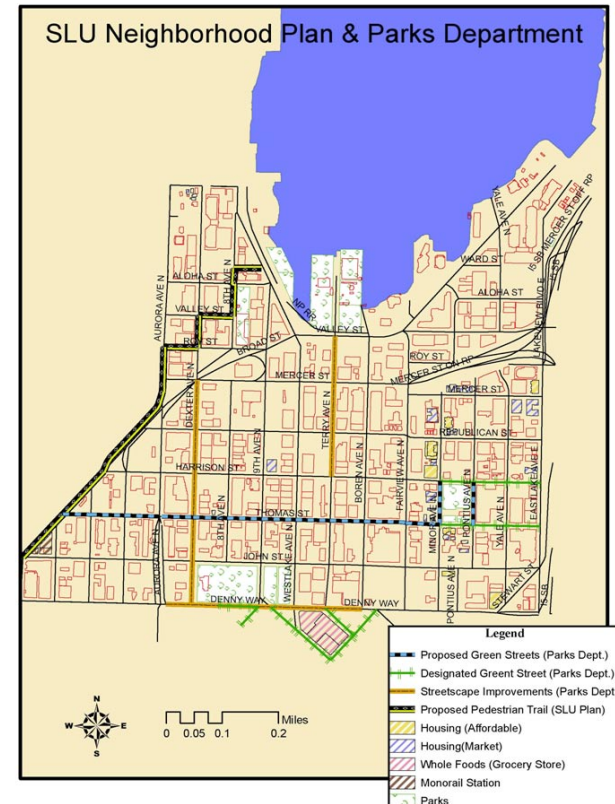
Specific streets are identified as Green Streets. These streets are identified as corridors appropriate for landscaping and open space enhancements (Map: SLU Neighborhood Plan & Parks Department, same as Map 4 at end of this section).

Street Improvements (Parks Department)

Specific streets are identified as in need of improvements. These streets are identified as corridors appropriate for general street enhancements (Map: SLU Neighborhood Plan & Parks Department, same as Map 4 at end of this section).

Proposed Pedestrian Trail (Parks Department)

The plan identifies pedestrian trails that would foster open space (Map: SLU Neighborhood Plan & Parks Department, same as Map 4 at end of this section).



Source: University of Washington, College of Architecture and Urban Planning, Department of Urban Design and Planning, South Lake Union Studio, Spring 2005



Heart Locations (SLU Design Guidelines)

“Heart locations serve as the perceived center of commercial and social activity within the neighborhood,” (South Lake Union Design Guidelines 2003). These areas were considered in the prioritization process (Map: SLU Design Guidelines, same as Map 2 at the end of this section).

Gateway Locations (SLU Design Guidelines)

“[Gateway locations] are sites that create opportunities for identification, a physical marker for the community to notice they are entering a special place. Methods to establish gateways should consider the site’s characteristics such as

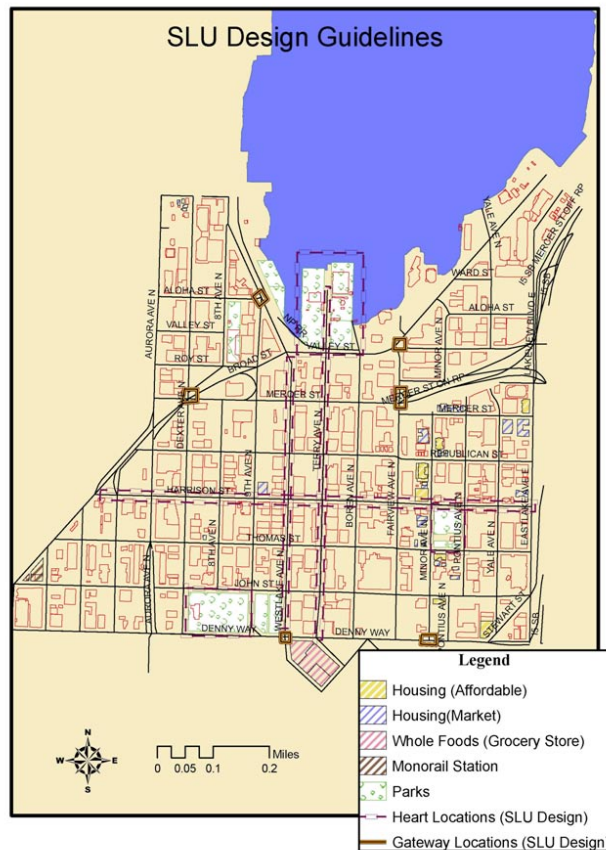
topography, views or surrounding building patterns,” (South lake Union Design Guidelines 2003). These areas were considered in the prioritization process (Map: SLU Design Guidelines, same as Map 2 at the end of this section).

Bicycle Lanes

An existing bicycle lane (Dexter Avenue) was considered in the prioritization process (Map: Existing and Developing Plans, same as Map 3 at end of this section).

Other Streets

Corridors that the City of Seattle has already created plans for were not considered



Source: University of Washington, College of Architecture and Urban Planning, Department of Urban Design and Planning, South Lake Union Studio, Spring 2005



Source: University of Washington, College of Architecture and Urban Planning, Department of Urban Design and Planning, South Lake Union Studio, Spring 2005

in the prioritization process. These include the Westlake Avenue [West Lake Union Improvement Plan], Mercer Street, Valley Street, and Broad Streets [Mercer Street Corridor Project]. See Map of Existing and Developing Plans, same as Map 3 at end of this section, for locations of these existing street projects.

Locations – Nodes of activity

Nodes of activity played an important part in determining pedestrian corridors needing improvements. The following are the principal nodes identified by this report: the proposed monorail stop, parks, existing housing, commercial uses, grocery stores (Whole Foods), and the waterfront. Additionally, the Charlottesville, Virginia reference demonstrates the need to coordinate improvements along adjacent corridors to avoid isolating the neighborhood's corridors. Although different levels of improvement are needed, the entire neighborhood must undergo improvements to avoid depriving any areas of pedestrian usage.

Priority Levels

Pedestrian Priority 1

Streets in this category are determined to receive immediate attention. Additionally, these streets should receive the highest level of street improvements in the neighborhood. The streets were chosen based on the criteria above; thus, high levels of pedestrian use are anticipated.



Sketch of Priority 1 treatment level

Street improvements include: landscaping (i.e. trees, planting strips, etc.), bio-retention swales, trash/recycle bins, pedestrian-level lighting, street furniture (i.e. bicycle racks, benches, etc.), brick mid-block and corner crossings, traffic calming devices (i.e. roundabout), brick accented sidewalks, no off-street parking.

Thomas Street

Thomas Street is the primary East-West Corridor in South Lake Union. It allows high density of housing on the eastern part of the neighborhood to be connected to the proposed monorail station. Additionally, Thomas should be connected to the existing housing units along Minor Avenue. Pontius Avenue, Minor Avenue and Republican Street provide this connection. Also, improvements to the pathway through Cascade Park should compliment the proposed pedestrian



Looking East on Thomas from John

connections. This will also contribute to usage and safety in the park. Additionally, a pedestrian pathway across Aurora Avenue is proposed in this study (see Wayfinding/Connectivity section).

The Parks Department has also identified Thomas Street as a 'Proposed Green Street' and has slated it for 'Streetscape Improvements' (see Map 4: SLU Neighborhood Plan and Parks Department). Finally, the proposed streetcar route will run along Thomas between Terry Avenue and Westlake Avenue, contributing to the importance of the corridor.



Looking West along Thomas at Fairview



Denny Way

Denny Way divides South Lake Union from the Denny Triangle. However, connectivity between nodes requires bridging this gap so people can easily access the grocery store (Whole Foods). Additionally, the proposed street improvements would increase park usage, as well as slow motorized traffic near the park.. The proposed streetcar route will run along Westlake Avenue; the addition of this transit mode will heighten the importance of pedestrian mobility in this area. This will affect pedestrian usage at the Denny-Westlake intersection. Pedestrian usage will be reduced if pedestrian oriented street improvements are not implemented. This is also consistent with remediation measures for a pedestrian bridge proposed in the Wayfinding and Connectivity section.



Looking SE at intersection of Denny and Westlake

Finally, the Parks Department identified this portion as a 'Designated Green Street.' Coupled with the SLU Design Guideline's identification of the Denny - Westlake intersection as a 'Gateway' to the neighborhood, Denny Way merits strong consideration.

Valley Street

Although Valley Street's future will likely be decided by the Mercer Corridor Project, this study aims to reinforce the need to make Valley Street a pedestrian corridor. The waterfront is a critical natural resource to the neighborhood. Promoting easy pedestrian access to and from the waterfront will enhance the neighborhood's identity. Furthermore, the Cleveland case study shows that a successful waterfront encourages investment in the neighborhood. The success of events such as the Cingular Summer Nights at South Lake Union will depend on accessibility to the waterfront.

The South Lake Union Design Guidelines further encourage Valley Street's development with 'Gateway' designations at the Fairview-Valley and Aloha-9th

Avenue intersections. Also, the South Lake Union Design Guidelines identify South Lake Union Park as a 'Heart' location. In addition, the proposed streetcar route will run on Valley. Clearly, Valley Street is vital to the community's identity as a vibrant pedestrian neighborhood.

Pedestrian Priority 2

Corridors identified in this category should receive immediate attention, though the treatment suggested may not be as extensive as Pedestrian Priority 1. The streets chosen reflect a support system for the Pedestrian Priority 1. The Charlottesville, Virginia, study demonstrated the necessity to avoid pedestrian 'dead zones'. This level aims to spread pedestrian energy throughout the neighborhood, rather than constraining activity to isolated areas.

Street improvements include: landscaping (i.e. trees, planting strips, etc.), trash/recycle bins, pedestrian-level lighting, street furniture (i.e. bicycle racks, benches, etc.), brick mid-block and corner crossings, and brick accented sidewalks.

Denny Park Area (Dexter Avenue North, 9th Avenue North, John Street)

The area identified for improvements surrounds Denny Park, thus pedestrian accessibility to the park will increase. Additionally, the improved pathways support usage of the Denny Way proposed improvements (see above).



Looking North along 8th from John

The Parks Department has designated a portion of the proposed improvement area as requiring ‘Street Improvements’ (see Map 4: SLU Neighborhood Plan & Parks Department). Also, the South Lake Union Design Guidelines declare Denny Park a ‘Heart’ location (see Map 2: SLU Design Guidelines). Therefore the surrounding streets should be given attention. While pedestrian improvements are encouraged on Dexter Avenue North, the presence of the neighborhood’s only bicycle lane should be recognized. Pedestrian improvements should not impede on bicycle usage.



Looking West along John

Harrison Street

This corridor runs parallel to Thomas Street (Map 5), complementing it. Improvements to Harrison Street support existing housing units along the eastern parts of the community. Also, a proposed street car stop on Terry Avenue North (between Harrison Street and Republican Street) would be well served by pedestrian amenities and street improvements along Harrison Street.



Harrison Street, looking west from Fairview

The Parks Department has designated a portion of Harrison Street as a ‘Designated Green Street’ (see Map 4: SLU Neighborhood Plan & Parks Department). Also, the South Lake

Union Design Guidelines declare Harrison Street a ‘Heart’ location (see Map 2: SLU Design Guidelines).

Thomas Street (Between Pontius and Eastlake)

This section of Thomas Street would serve to support existing housing as well as the Thomas Street designation (see Pedestrian Priority1: Thomas Street).

9th Avenue North (between Roy and Aloha Streets) and Aloha Street (between 9th Avenue North and 8th Avenue North)

The proposed street improvements would facilitate access to retail locations along 9th Avenue and the access to the waterfront, South Lake Union Park, and potential park land on 8th Avenue (possible future use).

The Aloha Street-9th Avenue North intersection is a designated ‘Gateway’ (see Map 2: SLU Design Guidelines). Another contributing factor to the importance of said street improvements is the high speed traffic from the north along Westlake. Pedestrian street improvements can create a sense of arrival and pedestrian safety on this auto-dominated stretch.

Pedestrian Priority 3

Pathways in this class should be deemed relevant to neighborhood connectivity. Existing conditions present opportunities to further pedestrian usage on these streets. Street improvements include: landscaping (i.e. trees, planting strips, etc.), trash/recycle bins, street furniture (i.e. bicycle racks, benches, etc.), pedestrian-level lighting, and brick accented mid-block and corner crossings.

Dexter Avenue North

The Parks Department has designated a portion of the proposed improvement area as requiring ‘Street Improvements’ (see Map 4: SLU Neighborhood Plan & Parks Department). Also, the South Lake Union Design Guidelines declare the Mercer-Dexter intersection a ‘Gateway location’ (see Map 2: SLU Design Guidelines). While pedestrian improvement is encouraged on Dexter Avenue, the presence of the neighborhood’s only bicycle lane should be recognized. Pedestrian improvements should not impede on bicycle usage.

Pedestrian Priority 4

Corridors identified in this category are important as support systems for the existing community and its future growth. Additionally, they tie together designations made in previous sections (i.e. Pedestrian Priority 1, 2, and 3). Improvements should be pursued in these areas, particularly if construction projects allow for

redevelopment. Street improvements include: landscaping (i.e. trees, planting strips, etc.), trash/recycle bins, pedestrian-level lighting, and corner crossings.

8th Avenue North

The Mercer Corridor Project includes redeveloping and redesigning Broad Street, Valley Street, and Mercer Street. The project presents a good opportunity to create a pedestrian crossing on 8th Avenue North from Mercer Street to Roy Street.

John Street (between 9th Avenue North and Westlake Avenue North)

Supports the Denny Park area (see Pedestrian Priority 1 and Pedestrian Priority 2)

Minor Avenue

The South Lake Union Design Guidelines declare the Denny-Pontius intersection a 'Gateway' location (see Map 2: SLU Design Guidelines). Additionally, the path leads to existing housing units.

Eastlake Avenue

The pathway supports existing housing units. Also, beautification measures along Eastlake, which borders Interstate 5, are recommended.

Mercer Street

The pathway supports existing housing units. Also, beautification measures along Mercer, which borders the Interstate 5 ramp, are recommended.

Denny Park

Much of this document has discussed activating street spaces by connecting existing nodes of activity. During the process of outlining corridors, it became apparent that one node, Denny Park, was currently underutilized but offered great potential as a sizable expanse of open space to be used by the burgeoning South Lake Union population. With this in mind, it was decided that analysis of existing conditions and recommendation of treatments for Denny Park was an issue that had to be addressed.

Introduction

Denny Park is a five acre parcel of open space bordered by Dexter Avenue North to the West, John Street to the North, 9th Avenue North to the East, and Denny Way to the South. It has an understory of grass upon which sits an intense tree canopy of 43 different non-Northwest native species. It is framed by an X-

shaped intersecting concrete pathway and a double pronged concrete pathway running North-South. All pathways converge in the center of the Park. Built in 1948, the Parks Department Administration Building sits on the western edge of the Park.

Denny Park has historical significance as Seattle's first City Park. It lies on Pioneer David Denny's land claim, and was first donated to the City in 1864 as a cemetery.



Aerial photo of Denny Park (Source: DPD GIS website, 1999 North Aerials: <<http://www.seattle.gov/dpd/MapCenter/>>)

Denny Park did not always look the way it does now. In 1883 the Dennys drew up a new deed dedicating most of the cemetery property to become a public park. Graves were relocated to Washelli Cemetery on Capitol Hill (site of current Volunteer Park). It came within Seattle City Limits in 1894 due to annexation, and by 1903, being in the midst of a residential area, it was re-landscaped with playfields, swings, teeter-totters, and a sand court. This was in addition to the fountains and pavilions which had been added a few years prior. Toward the completion of the Denny Regrade, the Park was rebuilt in 1932, taking on its current form.

Current Conditions

Denny Park is an isolated plot of open space. As noted by the Parks Department itself, Denny Park is "not well used," and improving Denny Park is one of the

highest priority actions in the North Downtown Neighborhood Parks Plan.

The public perception may be that there is an undesirable element commandeering the park. While there is a form of blight that has moved into Denny Park, it must be emphasized that, by Jane Jacobs' logic, this element is not there because it displaced other users but simply because nobody else was using the space, thereby



Successful open spaces are either surrounded by a diversity of uses or pull people to them via specialized uses. Pioneer Courthouse Square in Portland does both.

letting it sit empty. "Into it came what usually fills city vacuums – a form of blight." It lacks the proper mixture of uses in the surrounding area that give parks life through consistent use. Within a two block radius, the only residence is one single family home. Aside from this, there is no housing

in the immediate vicinity. As a hopeful indicator of the future, the Denny Park Apartments are currently under construction at the Southeast corner of Thomas Street and 8th Avenue North, and will provide fifty units of workforce housing. Additionally, Vulcan's plans to create an 8th Avenue residential district are very promising in terms of both bringing needed housing to the area, and in providing the district with users of open space.



When a park is surrounded by a mix of residences, offices, and retail, it needs no special attraction to be well-used (Rittenhouse Square, Philadelphia)

Current uses ringing the Park consist mostly of office and light industrial. While employees of these businesses could be potential noon-time park users, fieldwork did not suggest this to be the case. The wide expanse of asphalt that separates the Park from businesses across both Denny Way and Dexter Avenue North suggests these users feel psychologically cut-off from the Park and therefore do not use it.



Buildings across the street from Denny Park

The design of Denny Park makes it a challenge to pull people in from the surrounding area. The thickness of the tree cover forms a barrier around the perimeter of the park, and creates visual inaccessibility by blocking sightlines into the park. Successful open space offers a natural segue between being in the park and out of it; at select entrances, it invites people in gradually, enticing them to enter in as they feel comfortable.



Bryant Park in New York City before and after improvements were made to the main entrance. These huts are food kiosks. The interior of the park is now visible from the street (Source: Project for Public Spaces website, "Why Many Public Spaces Fail," http://www.pps.org/topics/gps/failed_place_feat)

Trees should be used to provide a sense of enclosure rather than a rigid border. Often this entails separating open patches of space with clusters of trees to give people something to back up against. People do not like to sit with their backs exposed. Whenever possible, they prefer to back up against a tree, ledge, or other defining feature.



Users of Denny Park



Many walk through, they just don't stop

While Denny Park previously had some recreational uses, currently it has none. This is significant. Lacking the proper chemistry in the area for people to naturally stumble upon the space, parks must resort to specialized uses to draw users in from beyond the immediate vicinity. One of the most basic forms of recreation, sitting and taking in the sun, is a pastime enjoyed by many city office workers on lunchtime reprieve. However, it is not really possible to do this in Denny Park because the tree canopy is too thick and the trees are scattered in such a way that there is



Vacant Benches

not any significant expanse of grass that is exposed to the Sun for a meaningful length of time. Lastly, the Park lacks socially suitable space for sitting. There are park benches along the concrete pathways, but they were not being used during any of our visits. When people sat, they sat on the grass. Providing for such a space is one of the goals of the North Downtown Parks Plan.

Remediation

It is recognized that Denny Park is an area of historical significance to the City of Seattle and its residents. However, in its current iteration Denny Park is not a success. The following measures propose to fix that through changes to both the surrounding area and to the Park itself. These suggestions borrow heavily from tenets put forth by well-respected authors in the planning field about what makes for successful open spaces, noted in Appendix A. It should be emphasized that these changes can be made for the benefit of the neighborhood while generally preserving the existing character and the heritage of Denny Park.

Add Housing

The most important thing to do in the long term is to add housing to the area. The streets on the South and East side of Denny have good urban form and have much potential as the site of a residential district, consistent with the outline for Vulcan's 8th Ave residential district. Housing is starting to come to 8th Avenue North, with the Denny Park Apartments currently under construction. Additionally, several parcels on the perimeter of the park have buildings worth less than 40% of the land value, which speaks to the feasibility for developers to acquire these parcels for residential redevelopment. If land can be appropriately acquired, consider closing the block of John between 9th and Dexter to automobiles and developing housing to spill directly out onto the park on that side.



First significant housing project in Denny Park area



On certain streets, housing should spill directly onto the sidewalk

Turn Parks Administration Building into a Community Center

In the 1998 South Lake Union Neighborhood Plan, neighborhood stakeholders expressed their desire to relocate the Parks Department Headquarters and adapt the existing structure for use as a neighborhood community center. This idea has since surfaced in the Parks Department's own North Downtown Park Plan. This idea is strongly supported as it would help the building better 'communicate' with the park. Ideally the design would provide pedestrian access through the building in the form of an open air passageway. This would offer a visual sightline from Dexter to the center of the park. There would be room for a counter sandwich café with open-air patio, which could be leased to a proprietor or run as a non-profit venture to educate youth interested in learning how to run a business. Properly located, this food plaza would also form a segue between the building and the open space, and would pull people into the park. Site reconnaissance suggested unmet demand for lunchtime locations, evidenced by lines out the door at several existing establishments, so having a food venture located within the park bears promise and further consideration.

Thin the tree cover and transplant some trees

The tree cover needs to be thinned, and some of the trees should be transplanted and relocated to reduce scattering and concentrate trees in clusters. Ideally, some of the trees could be relocated onto surrounding streets designated Priority 1, as part of the pedestrian corridor designation. If transplantation is feasible, these already mature trees would provide immediate greenery to the surrounding concrete and asphalt dominated streetscape. Austrian Black Pine is the most common tree in the park, so perhaps some of these can be moved out of the park and onto streets designated for streetscape improvements. Arthur Lee Jacobsen, who has documented every tree in Denny Park, has noted of Austrian Black Pines that if these "specimens decline and perish they will be little missed."

Create a sunny spot with ledges suitable for sitting

As noted, the trees provide too much coverage and enclosure. Up to 30% of the park area (1.5 acres) should be drenched in sunlight. This would be an open area with a variety of ledges that would function as places to sit. The grade of Denny Park lends itself well to creating a variety of sitting spaces that differ in height and orientation by simply building in level ledges that form various angles with the topography.



Incorporate recreational uses

More immediately, recreational uses can and should be incorporated into the park, which will serve as a catalyst for change. Users of recreational space will inject life and stewardship into the park. There are all kinds of uses that can be introduced into the park, such as basketball courts, tennis courts, or a raised pavilion for political rallies and dramatic performances. Denny Playfield, located adjacent to Denny Park, provides the only space for active recreation in the North Downtown area, with a small soccer field and basketball court. However, this site is privately owned and will eventually be converted to commercial development.



Recreational uses inject life into open spaces (Source: Project for Public Spaces website: http://www.pps.org/topics/gps/failed_place_feat)

Farmer's Market

Opening up a large expanse of Denny Park would allow for siting of a Farmer's Market. The idea of locating a Farmer's Market to South Lake Union is further discussed in the Community Identity Section. Because it is bordered by streets on all sides, Denny Park provides excellent access for vendors to set up booths. This type of activity would also serve as a good attraction to draw people into the park. The market could be tried out both on Tuesday afternoons and on Saturday mornings to see which time draws the best crowd.

Denny Playfield uses

As noted, Denny Playfield is the only publicly-accessible facility that provides for active recreation in the North Downtown area. However, as it is privately owned, its future is uncertain. Transferring the basketball court and soccer field uses to Denny Park merits consideration. However, for something as large as a soccer field, Denny's grade poses problems. Tennis courts are another possibility.

Food Kiosk or Cafe

William Whyte has said, "if you want to seed a place with activity, put out food. Food attracts people, which in turn attract more people." A café would complement

newly provided open space by giving users yet another reason to come to Denny Park; a place to sit and enjoy the sun and also to get a bite to eat.

Playground

Based on site reconnaissance, the newly renovated Cascade Playground looks to be a big hit with the community and especially with children. It is doubtful that there is currently the needed amount of housing stock nearby to support an additional playground at Denny Park, but this idea should be part of a master plan for Denny Park in expectation of the burgeoning population. The walkability analysis presented in the Wayfinding and Connectivity section concluded that Playgrounds were among the features that encourage walkability.



Kids enjoying a revitalized Cascade Playground

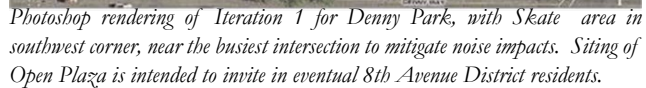
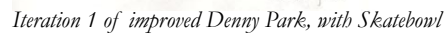
Skate park

A skate park within Denny Park would be consistent with the Parks Department's Skateboard Parks Policy, which recognizes skateboarding as a "healthy and popular recreational activity and a legitimate use to be accommodated within the Parks System." At the same time, the policy seeks to locate skate parks at sites where noise impacts can be minimized, the skate park can be "part of a larger park space that provides other park amenities," and room can be provided for spectators to watch and enjoy. Denny Park's grading and location along two busy arterials make



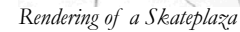
Rendering of a skatebowl in a park-like setting

Within Washington, the best source of funding is the Washington State Wildlife and Recreation Program. They awarded the City of Kent over \$500,000 to construct their third skate park, and recently awarded Seattle \$300,000 towards the Lower Woodland Park Skate Park.



Other Uses

There is an almost endless list of potential specialized and recreational uses that can be injected into the park. Here is a quick laundry list: climbing wall, bocce ball, shuffleboard, ropes course, botanical society, public stage or podium for performances, fountains, P-patches, and game tables.



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2. Christopher Alexander, et al, *A Pattern Language: Towns, Buildings, Construction* (New York: Oxford University Press, 1977).
3. Amazon.com book review
4. William H. Whyte, *The Social Life of Small Urban Spaces* (New York: Project for Public Spaces, 2001).
5. See USGBC website for more information on LEED: <<http://www.usgbc.org/LEED/>>
6. Woonerf is a Dutch word which means “street for living.” It consists of common space shared by pedestrians, bicyclists, and low-speed motor vehicles. They are usually streets raised to the same grade as curbs and sidewalks. Vehicles are slowed by placing trees, planters, parking areas, and other obstacles in the street. Motorists are treated as the intruders and must travel at walking speed. This makes a street available for public use that is essentially only intended for local residents.
7. http://www.ci.seattle.wa.us/util/About_SPU/Drainage_&_Sewer_System/Natural_Drainage_Systems/Street_Edge_Alternatives/index.asp
8. In person conversation with Caitlin Evans, May 20, 2005.
9. West Lake Union Improvement Project details available at <www.cityofseattle.net/westlake>
10. Case-study available at www.greatstreets.org
11. Information available at www.masscommute.com, www.cityofboston.gov, and <www.greatstreets.org>
12. Information available at www.planning.city.cleveland.oh.us
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15. Information available at www.pdc.us
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20. Example available at City of Sante Fe Arts Commission www.cominguptaller.org
21. It should be noted that while the Green streets designation has not been abandoned, it has been de-emphasized by the City. Why is not exactly clear, but perhaps it has something to do with confusion applied to the term being used prolifically to describe any number of treatments, from the simple addition of street trees all the way up to a Vine Street type of designation. Parks Department documents can be located at <http://www.cityofseattle.net/parks/>
22. Article on Denny Trees by Arthur Lee Jacobsen: <<http://www.arthurleej.com/a-DennyPark.html>>
23. Information on Park history taken from Denny Park webpage on Seattle Parks and Recreation website, available at <<http://www.cityofseattle.net/parks/parkspaces/dennypark.htm>>
24. North Downtown Park Plan, pgs. 19, 44
25. *Death and Life of Great American Cities*, p. 97
26. *From A Pattern Language. Pattern 114, Hierarchy of Open Space.*
27. *Death and Life of Great American Cities*, p. 108
28. *The Social Life of Small Urban Spaces*, p. 27
29. See Map 1, Buildable Lands Map
30. See SLU Neighborhood Plan, Section 6.
31. Article on Denny Trees by Arthur Lee Jacobsen: <<http://www.arthurleej.com/a-DennyPark.html>>
32. *Social Life of Small Urban Spaces*, p. 87
33. See City of Seattle Parks Department Skateboard Parks Policy. Available online at <<http://www.cityofseattle.net/parks/Publications/skateboardPolicy.htm>>
34. See Feature Story in May 5th Stranger, “Shut Out,” by Amy Jenniges: <<http://www.thestranger.com/2005-05-05/feature.html>>
35. See Stranger Article. Also <http://www.spausa.org/skatepark_costs.html> puts \$20/sf for concrete at the high end of construction costs.
36. The Seattle region also has the know-how to construct great skate parks. It is home to a premier skate park design-build company in Seattle, Grindline (www.grindline.com). They have built over 50 skate parks around the world including several across the State of Washington. They know how to build well-designed parks that are popular with skaters, because they accommodate a range of skill and ability. Recently, they have begun constructing skate plazas, which incorporate more street elements into the design and may be more aesthetically appealing to non-skaters because they look and function



like a normal public plaza.

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Appendix A

Principles to be followed in Designing Pedestrian Pathways and Open Spaces



From *A Pattern Language*, by Christopher Alexander

Water

When natural bodies of water occur near human settlement, treat them with great respect. Always preserve a belt of common land immediately beside the water. Allow development to come right down to the water only at infrequent intervals. This may be no more than a simple stone promenade along the water's edge, or something much grander.

Activity Nodes

Studies of human behavior make it clear that people seek out concentrations of other people, whenever they are available. To create these nodes, facilities must be grouped densely round very small public squares and all pedestrian movement in the community organized to pass thru these nodes. Major pedestrian paths should converge on this node, with minor paths funneling into the major ones, creating almost a star shape pattern. Squares can be small, like 40x60 feet (2400sf). Each subculture needs a center for its public life, a place where you can go to see and be seen. But promenades will not work unless pedestrian density is high enough. So it must be associated with places that in themselves attract people – clusters of eating places and shops. Any point which is more than 150 feet from a hub of activity becomes unsavory and unused. In every neighborhood and work community, make a piece of common land into an outdoor room – a partly enclosed space, with some roof, and columns, without walls, perhaps with a trellis; place it beside an important path and within view of many homes and workshops

Road Crossing

Where paths cross roads, cars have power to frighten and subdue the people walking, even when the people walking have the legal ROW. This will happen whenever the path and the road are at the same level. If the pedestrian way crosses 6-12" above the roadway, and the roadway slopes up to it, this satisfies both requirements. To make the crossing even easier to see from a distance and to give weight to the pedestrian's right to be there, the path can be marked by a canopy at the edge of the road. A big wide road, with several lanes of heavy traffic can form an almost impenetrable barrier. In this case, you can solve the problem, at least partially, by creating islands, one in the middle. This makes it much easier to cross the road. So if you can't raise the crossings, at least create the islands, to use like stepping stones.

Raised Walk

Raised pedestrian pathways provide a security for pedestrians vs. cars. The appropriate width is probably 12-30 feet. The Champs Ely sees sidewalks are 30' and are very comfortable, if not impractical for most areas. Less than 12', a



Unbroken stretches of asphalt make crossing a street a challenge

pedestrian begins to feel cramped and threatened by cars. A conventional sidewalk is usually 6' wide only. One way to afford the extra width needed to feel comfortable is to put a sidewalk along only one side of the road. This of course means there can only be shops along one side of the road [another way is to put a buffer in, typically street trees or parallel parked cars].

Street Cafes

The street café provides a unique setting, special to cities: a place where people can sit lazily, legitimately, be on view, and watch the world go by. We know that people like mixing in promenades, parks, and squares. Street cafes give you the right to be there. It is a



Even a small island helps break up the expanse of the street width

place where you can sit and watch the city move by you, versus strolling where you move through the city. Properly located on a busy pathway, there will be much

to see in between sips of espresso or snippets of newspaper. It is often one of the only places where a newcomer can venture and start learning the ropes and meeting the people who have been there many years. This street café needs to push into the street, but be lightly separated by a barrier. Make the terrace of the café double as a place to wait for a bus or a streetcar. Identify it by using a canvas roof.

Corner Grocery

Neighborhood stores are one of the two most important elements in people's perception of an area as a neighborhood. Apparently this is because local stores are an important destination for neighborhood walks. People go to them when they feel like a walk as well as for a carton of milk. As a generator of walks, then, they draw a residential area together and help to give it the quality of a neighborhood. At distances of around 4 blocks or more, people don't walk to the store, they drive. Thus it seems that from research, corner stores need to be 1200 feet or less from someone's home for them to use it. This corresponds perfectly with 1/4 mile goal of traditional neighborhood development.



Pedestrian Street

The simple social intercourse created when people rub shoulder in public is one of the most essential kinds of social glue in society. To recreate the social intercourse of public movement, as far as possible, toe movement between rooms, offices, departments, buildings, must actually be outdoors, on sheltered walks, arcades, paths. Pedestrian streets do not have cars, but do have frequent crossings by streets with traffic. Deliveries and other activities which make it essential to bring cars and trucks onto the pedestrian street must be arranged at the early hours of the morning, when the streets are deserted.

Southern-facing outdoors

People use open space if it is sunny, and do not use it if it isn't, in all but desert climates. North sides of parcels do not get sun like southern parcels. People prefer sunny to shady areas. Therefore, always place buildings to the north of the outdoor spaces that go with them, and keep the outdoor spaces to the south. Never leave a deep band of shade between the building and the sunny part of the outdoors.

Pedestrian use of Public Space

At 150 square feet per person an area is lively. If there are more than 500 square feet per person, the area begins to feel dead. For any place where crowds are drawn together, estimate the mean number of people in the place at any given moment (P), and make the area of the place between 150P and 300P square feet.

Stair Seats

Wherever there is action in a place, the spots which are the most inviting are those high enough to give people a vantage point and low enough to put them in action. This means that places which are slightly elevated must also be within easy reach of passers-by, hence on circulation paths, and thus directly accessible from below. Thus in any public place where people hang out, add a few steps at the edge where stairs come down or where there is a change of level. Make these raised areas immediately accessible from below, so that people may congregate and sit to watch the goings-on.

From *The Death and Life of Great American Cities*, by Jane Jacobs

How to Achieve Diversity of use

To generate exuberant diversity in a city's streets and districts, 4 conditions are indispensable:

- The district must serve more than one primary function [SLU does not have much of but could]
- Most blocks must be short [SLU has]
- The district must mingle buildings that vary in age and condition, including a good proportion of old
- ones so that they vary in the economic yield they must produce. [SLU has but can it be preserved?]

- There must be a sufficiently dense concentration of people [SLU does not have...yet]

Of the 4 generators, mixtures of primary diversity and sufficient concentration of dwellings, are more difficult to create if they are lacking. The sensible thing is to begin where at least one of these two conditions already exists or can be fostered relatively easily. [problem for SLU]

Prerequisites for street life

- Pedestrian life cannot exist in the absence of worthwhile destinations that are easily accessible on foot.
- Street space must not only BE safe, but also FEEL safe
- Street space must be comfortable
- Street space must be interesting

Open Space

- p. 89: Parks are volatile places. They tend to run the extremes of popularity and unpopularity.....For every Rittenhouse Square in Philadelphia or Boston Common, there are dozens of dispirited city vacuums called parks, eaten around with decay, little used, unloved.
- p. 90: In orthodox city planning, neighborhood open spaces are always venerated as a good thing, as a self-evident virtue.....but people do not use city open space just because it is there and because city planners or designers wish they would.
- p. 95: Unpopular parks are troubling not only because of the waste and missed opportunities they imply, but also because of their frequent negative effects. They have the same problems as streets without eyes, and their dangers spill over into the areas surrounding, so that streets along such parks become known as danger places too and are avoided.....Too much is expected of city parks. Far from transforming any essential quality in their surrounding, far from automatically uplifting their neighborhoods, neighborhood parks themselves are directly and drastically affected by the way the neighborhood acts upon them.
- p. 96: A mixture of uses of buildings directly produces for the park a mixture of users who enter and leave the park at different times. They use the park at different times from one another because their daily schedules differ. The park thus possesses an intricate sequence of uses and users.....(p. 97) In short, Rittenhouse Square is busy fairly continuously for the same basic reasons that a lively sidewalk is used

continuously; because of functional physical diversity among adjacent uses, and hence diversity among users and their schedules. One of Penn's other 4 congruent parks, Washington Square – the one that became a pervert park – affords an extreme contrast in this respect. Its rim is dominated by huge office buildings, and both this rim and its immediate hinterland lack any equivalent to the diversity of Rittenhouse Square – services, restaurants, cultural facilities.....Washington Square has had only one significant reservoir of potential local users; the office workers, who all operate on much the same time schedule, making the park a vacuum most of the day. Into it came what usually fills city vacuums – a form of blight. The perverts who took over did not drive out respectable users, they moved into an abandoned place and entrenched themselves.....It need not have been office work that depopulated this park. Any single, overwhelmingly dominant use imposing a limited schedule of users would have had a similar effect. The same basic situation occurs in parks where residence is the overwhelmingly dominant neighborhood use.

- p. 99: In cities, liveliness and variety attract more liveliness; deadness and monotony repel life. And this is a principle vital not only to the ways cities behave socially, but also to the ways they behave economically.
- p. 101: There is no point in bringing parks to where the people are, if in the process the reasons that the people are there are wiped out and the park substituted for them. This is one of the basic errors in housing projects and civic/cultural center design. Those that are successful never serve as barriers or as interruptions to the intricate functioning of the city around them. Rather, they help to knot together diverse surrounding functions by giving them a pleasant joint facility; in the process they add another appreciated element to the diversity and give something back to their surroundings.....only a genuine content of economic and social diversity, resulting in people with different schedules, has meaning to the part and the power to confer the boon of life upon it.
- p. 103: Parks intensely used in generalized public yard fashion tend to have 4 elements in their design which I shall call intricacy, centering, sun and enclosure.
- P. 108: If a generalized city park cannot be supported by uses arising from natural, nearby intense city diversity, it must convert from a generalized park to a specialized park. Magnificent views and handsome landscaping fail to operate as demand goods; maybe these should, but demonstrably they do not. They can work as adjuncts only. Conversely, swimming operates as a demand good. So does fishing. Sports fields do. So do carnivals, or carnival like activities.



- p. 111: In summation, the more successfully a city mingles everyday diversity of uses and users in with everyday streets, the more successfully, casually (and economically) its people thereby enliven and support well-located parks that can thus give back grace and delight to their neighborhoods instead of vacuity.

From *The Social Life of Small Urban Spaces*, by William Whyte

Sitting Space

The first factor that defines why people sit in some places and not others is the Sun. But enclosure is probably the most important factor. Amount of total space is not that critical but the amount of sittable open space is. The best used plazas had considerably more sitting space than ones that weren't as popular. People tend to sit most where there are places to sit. Perhaps this is not such a revelation but considering how many public spaces are without it, it bears repeating – people sit where there is a place to sit. More important than aesthetically comfortable, the sitting area must be socially comfortable. This means choice. People must have options of sitting up front, in the shade, in the sun, in the center of action or removed from it.

Ledges and spaces two backsides deep seat more people comfortably than those that are not as deep. 36" is great. The zoning code Whyte's team drafted for NYC reflects this by stating that the developer gets credit for the linear feet on each side of the ledge if it is >30" wide. 24" is too narrow for two people to sit comfortable back to back and they will only do it in a pinch.

Steps work well because the range space provides an infinite number of possible groupings, and the excellent sightlines make virtually all the seats great for watching the theater of the street. Corners on steps are optimal because they allow people in groups to sit face to face. Steps also serve as a natural segue between the street and the plaza.

Benches are not as great as you might think. There are usually too few of them, they are too small, and they are usually isolated from where the action is. Where they are used it is best to make them portable and not fixed to concrete. If the placement turned out to be improper, they can be moved. One great thing about benches is that they have backrests. By similar logic, fixed individual seats are

not good either. Planners may balk at the supposed maintenance and vandalism opportunities in offering movable furniture. Paley Park's example counteracts this logic, as does the experience of the Metropolitan Museum of Art – it puts 200 chairs out and leaves them out 24/7, figuring that trusting people and replacing chairs when necessary is be cheaper than hauling them in and out every day.

The best used plazas offer 6-10% of total open space as sittable. Ideally, the amount of sittable space should equal the amount of perimeter linear feet. The zoning requirement settled on the compromise of 1 linear foot of sitting space for every 30 square feet of plaza. This is reasonable and builders have been meeting it with no trouble.

People are attracted to other people

By far, what attracts people most is other people. Why is it that so many open spaces are designed as though the opposite were true? People really don't favor seclusion, they like to be involved, able to participate if they like, and some prefer to even be the center of attention. People often position themselves close to objects – a tree, a flagpole. They like well defined places, such as steps, or the border of a pool. What they rarely choose is the middle of a large space with no definition (22).

Sun, Wind, Trees, and Water

Sun and southern exposure is of critical importance. Access to the sun should be protected, ideally by acquiring air rights of low rise buildings across the way, so they will stay low.

Places that have little or no sun because of a northern exposure or a large building shadow can borrow sunlight. Using building materials that reflect light in considerable amounts. Grace plaza, for example, gets no direct sun at all but benefits most of the afternoon from the light reflected by the southern exposure of the building to the north.

Warmth is just as important. People seek suntraps. The absence of wind and drafts are as critical for these as sun. In this respect, small parks, especially those enclosed on three sides, function well. Physically and psychologically they feel comfortable and this is one of the reasons why their relative carrying capacity is so high.

Most new urban spaces are either all outdoors or all indoors; more could be done to encourage in-betweens. With the use of glass canopies or small pavilions, semi



outdoor spaces could be created that would be usable in all but the worst weather. They would be particularly appropriate in rainy cities like Seattle.

Food

If you want to seed a place with activity, put out food. Vendors have a good nose for public spaces that work. They have to. They flourish because they're servicing a demand not being met by the regular commercial establishment. Food attracts people who attract more people. The most basic facility is the snack bar. Paley and Greenacre parks both have pass-through counters featuring good food at reasonable prices, and making a moderate profit. From the street it sometimes looks like a party.

The Street

The key space for a plaza is the street. The relationship to the street is critical. A good plaza starts at the street corner. If it's a busy corner, it has a brisk social life of its own. A key feature of the street is retailing – store windows. The area where the street and plaza or open spaces meet is a key to success or failure. Ideally the transition should be such that it's hard to tell where one ends and the other begins.

Zoning Code

When drafting zoning code to encourage open spaces, many planners think specificity is too restrictive. This argument can be a persuasive one; leave it broad – “make the place sittable” – and leave details to be settled on a case by case basis. But ambiguity is a worse problem. Most incentive zoning ordinances are very, very specific as to what the developer gets. But they are mushy about what he is to give. Vague stipulations are unenforceable. What you do not explicitly prescribe, you do not get.

One piece of zoning that did not happen was the small park bonus. This would have meant that instead of building a plaza, a developer could get his additional floor space by providing a small Paley-type park on a side street nearby. It would have to be a good park, with plenty of seating, food facilities, trees, and the like. The developer would have to maintain it and post a performance bond. The small park bonus would have been a good deal for all concerned: the developer would get land at side street prices and multiply it into avenue floor space, the city would get a park at no cost, and this would be another amenity for the public.

Amenities have proved so demonstrably worthwhile as to pose a question. Is it necessary to give so much floor space bonus to get them? What has been increasingly troubling is the bulk of new buildings. They are bigger than the zoning had anticipated, but they are bigger because of the zoning. Taken one by one, the special floor area bonuses that have periodically been added to the zoning have made sense. The trouble is that builders have been combining them into a whole that the parts weren't meant to add up to. This fact is reflected in the market price of land, and as developers are quick to plead, this forces them to seek the maximum permissible bulk. Then there is the increasing use of air rights transfer. The basic idea is good and has been well applied to the protection of landmarks. But it does provide another upward push. By coming in every feasible bonus provision with a purchase of rights from a nearby site, the developer can put up a building with a FAR of up to 21.6, versus the nominal 15 originally stipulated.



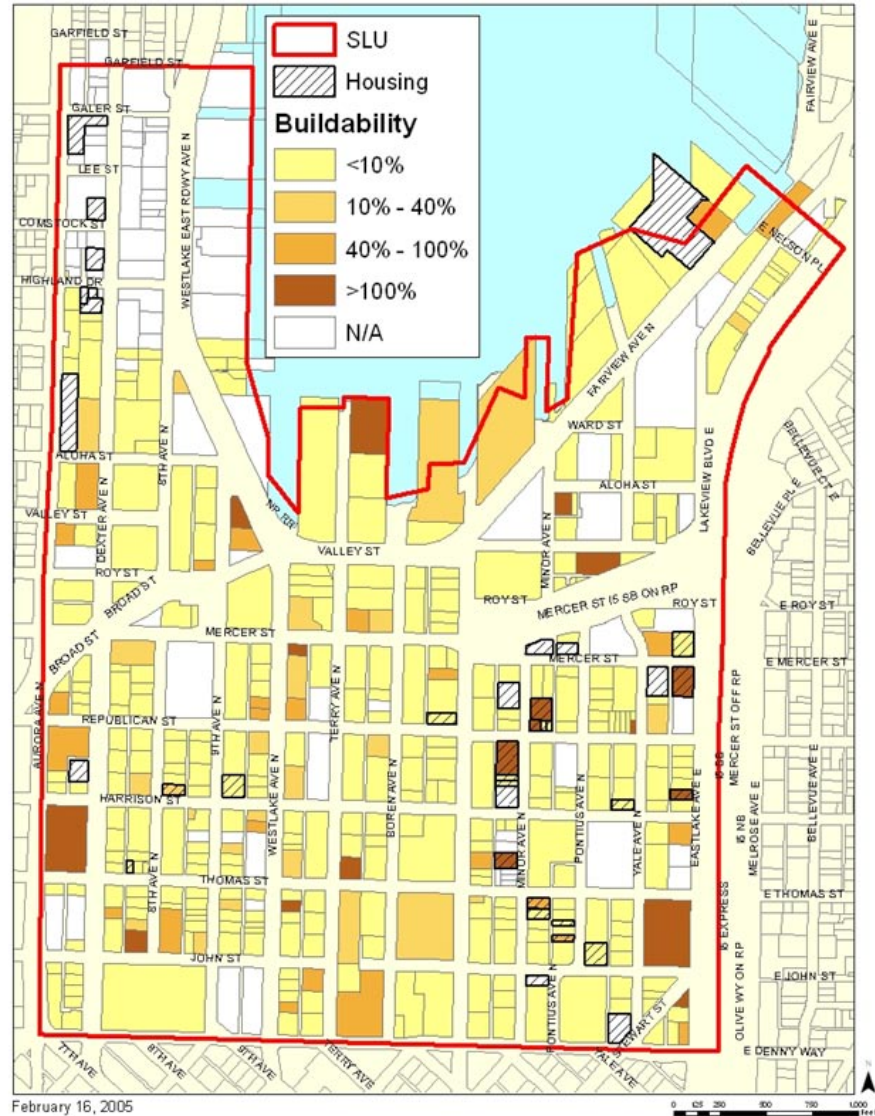
Appendix B

Maps and Renderings

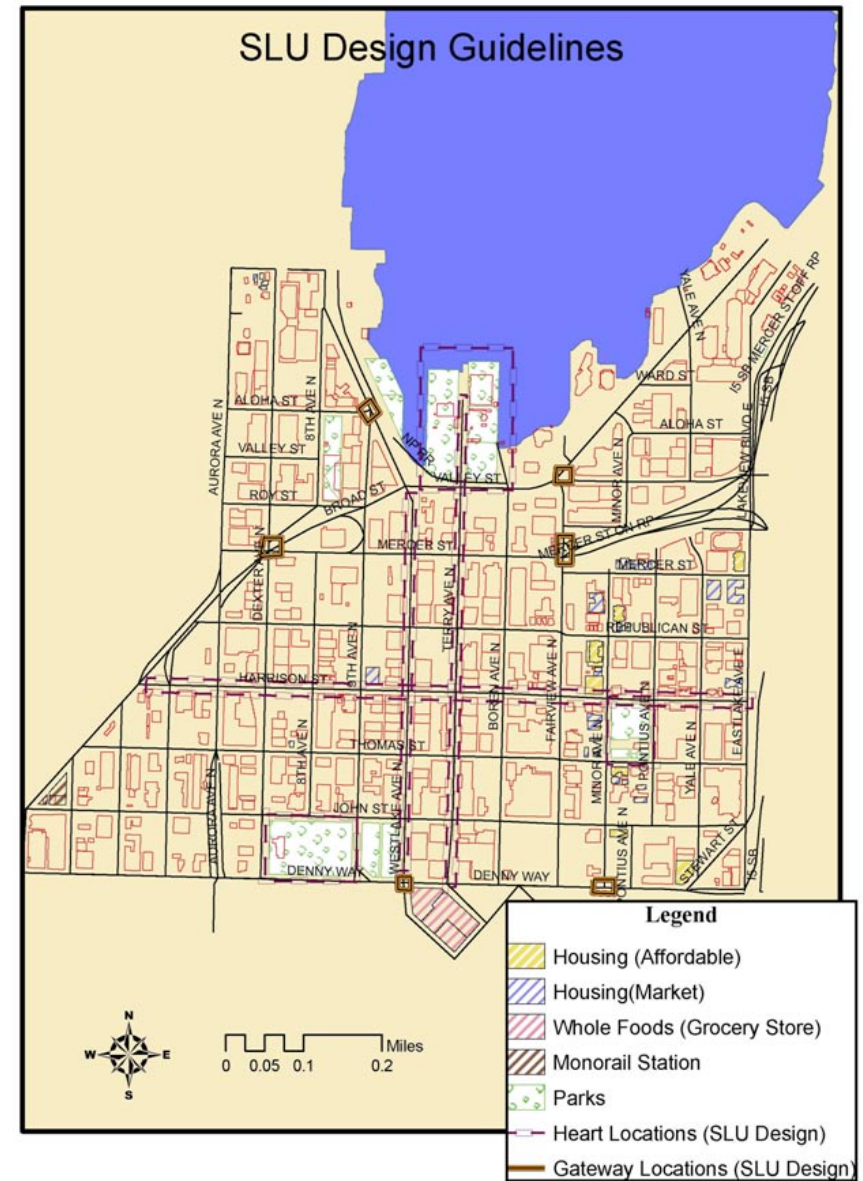


Map 1: Buildable Lands

South Lake Union - Buildable Lands



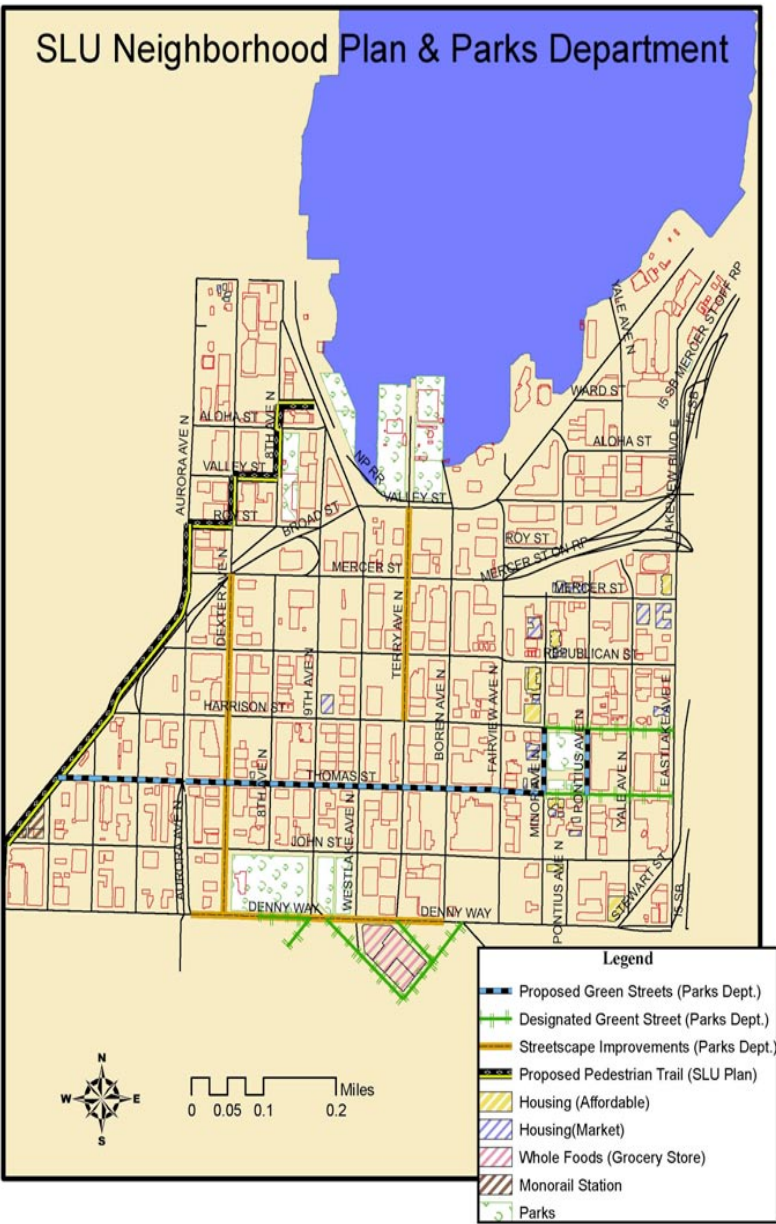
Map 2: South Lake Union Design



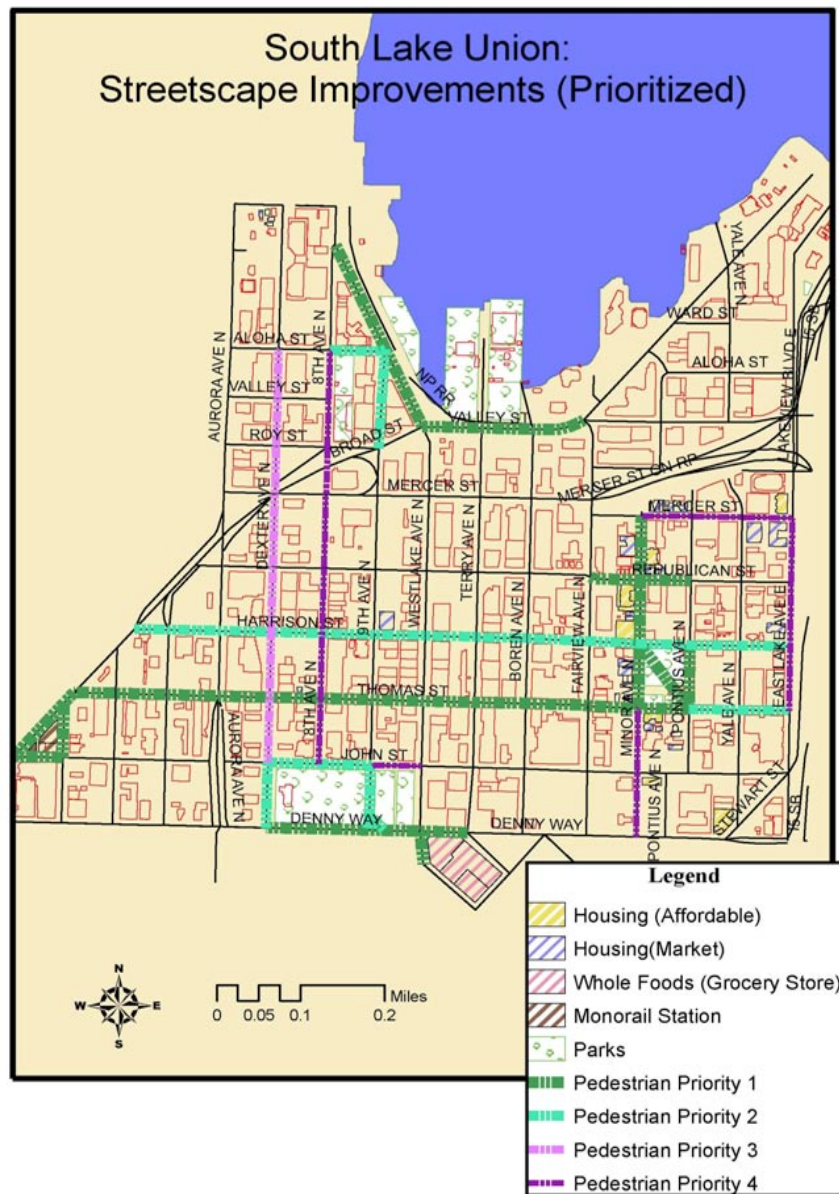
Map 3: South Lake Union Existing/
Developing Plans



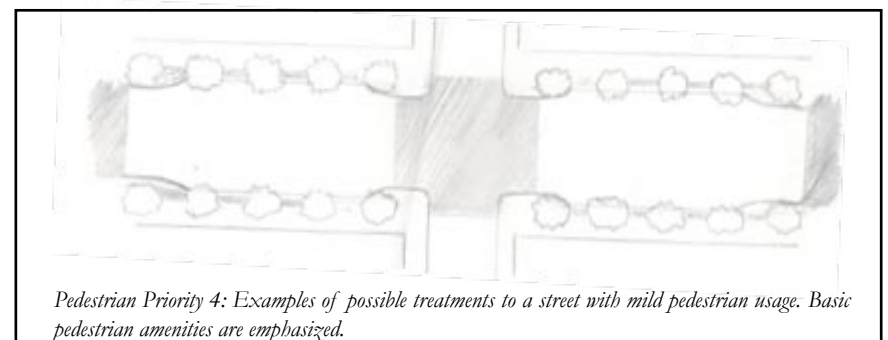
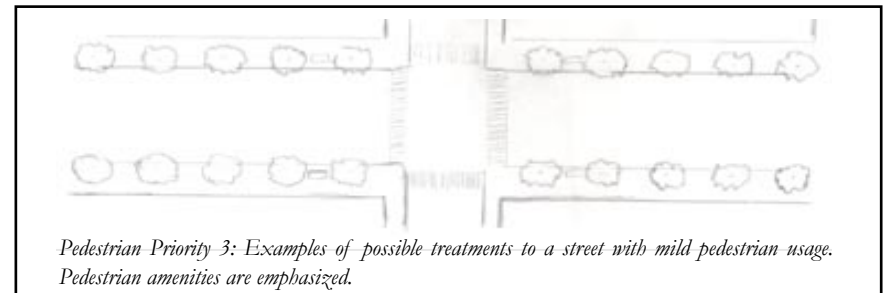
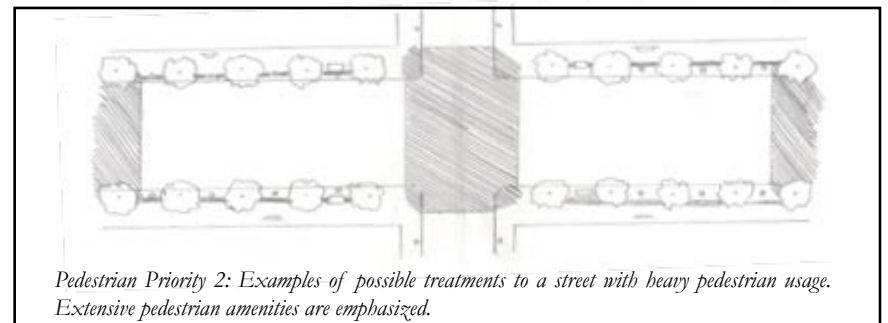
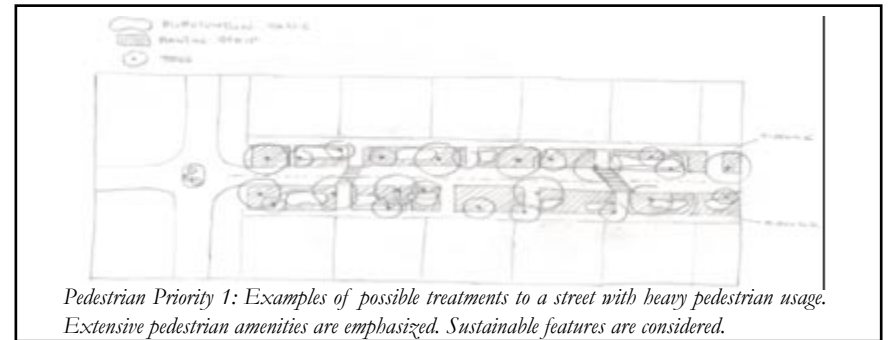
Map 4: South Lake Union Plan and
Parks Department



Map 5: South Lake Union Streetscape Improvements (Prioritized)



Streetscape Renderings



Urban Form



Introduction and Purpose

A discussion of neighborhood improvement is incomplete without a thorough investigation into how alternative development patterns affect urban design and the built-form of a community. As such, a digital three-dimensional model of South Lake Union as it is presently constituted was produced to assist in this analysis. Later, a “built-out” model was generated, showing the maximum building envelope possible on properties within the study area under existing zoning, with consideration for 2024 population and jobs projections. Finally, we produced a model of the study area displaying a model of development which allows for greater maximum building height (high-rise tower alternative), but within the same growth projections parameters.

The primary objective of this model was to explore different options for accommodating growth in the neighborhood. Both the current zoning and the high-rise tower alternative allow for the construction of buildings whose height is greater than that which is presently found within the neighborhood. As such, using the model developed to visualize these impacts brings the planner, legislator and citizen to a better understanding of the implications of changing height regulations.

Methods and Process

Three primary elements make up the models of South Lake Union: present conditions model development, assumptions about future development patterns, and creation of future development models.

Present Conditions Model Development

Data used to generate the existing conditions model was derived from City of Seattle data as can be found at <http://.wagda.lib.washington.edu> as of April 2005. Using ArcGIS 9.0 and ArcScene, the data was first clipped from the larger datasets to only include South Lake Union and adjacent blocks. The data was then extruded to reflect topographical and dimensional realities. This three-dimensional data was then converted into a CAD drawing format for further conversion into the three-dimensional modeling software, 3D Studio MAX. This software was chosen for its versatility in performing multiple analysis functions. The result was a digital representation of the South Lake Union neighborhood, complete with pavement, buildings and topographical layout.

Assumptions about Future Development Patterns

The next step was to arrive at preliminary assumptions for future growth alternatives and thereafter develop two development alternatives from the following four assumptions:

- The growth alternatives were developed to reflect current population and job growth projections for 2024 for South Lake Union (8,000 new households, 16,000 new jobs).
- Sites which are unlikely to be redeveloped were identified. The map at the end of this chapter shows the locations of these sites. Generally, they include city parks, places of worship, the Fred Hutchinson Cancer Research Center, buildings constructed within the past 20 years, existing marina and maritime facilities, and existing affordable housing, measured by buildings with rents that are at or below 80% of median income. These sites were identified through King County Assessor data, Seattle Housing Authority data, and aerial photos.
- New development portrayed in the model would not take into consideration site-specific constraints such as soil conditions, traffic and environmental impacts and similar contingencies.
- Lastly, where population and job growth projections did not warrant additional development, sites with marginal likelihood of redevelopment were left alone.

With these preliminary assumptions, two growth alternatives were identified. The first assumed that zoning would remain constant during the next 20 years and therefore the height and bulk of future development would be consistent with current regulations. The map included in this chapter identifies these zoning designations. It was assumed that 60% of useable lot space would be dedicated to the primary use of the building (e.g. commercial space, residential units, industrial space), 20% would be allocated to open space, and the remaining 20% would be consumed by common access areas.

The second growth alternative assumed that building heights would increase in the area to accommodate taller residential towers. Currently the City of Seattle is proposing to increase maximum building heights within the downtown core area in order to allow for more office and residential development. The objective behind this proposal is to ensure that Seattle meets its housing and job allocation targets, as defined in its Comprehensive Plan. The high-rise alternative for South Lake Union essentially extends this proposal to the study area and assesses the visual impacts



that could result from such modifications to present zoning regulations. It was assumed that such an alternative would concentrate most of the taller buildings closer to the Denny Triangle. These assumptions were developed for modeling purposes only and do not represent a recommendation of the UDP studio or the City of Seattle.

They are as follows:

- Maximum height of 240 feet south of Mercer Street
- No changes to existing zoning north of Mercer Street
- 85 feet distance between buildings greater than 100 feet in height
- 45 feet distance between buildings less than 100 feet and greater than 50 feet in height
- Floor plate above 85 feet in height no greater than 10,000 square feet
- No floor area ratio (FAR) restrictions in order to maintain simplicity of assumptions

Creation of Future Development Models

After making assumptions on future growth patterns based on information from the maps of current zoning and parcels, two alternative models depicting South Lake Union were developed. Perspective views of these alternatives are included herein.

Results and Discussion

The process outlined above results in a versatile model complete with the ability to view the visual impacts of future development alternatives for South Lake Union from every possible viewpoint. Because of its location, South Lake Union is a highly visible portion of Seattle; the neighborhoods of Queen Anne, Wallingford, and Capitol Hill all overlook South Lake Union. This has implications for future development models in preserving sightlines and view-sheds from these adjacent neighborhoods.

Analysis and Recommendations

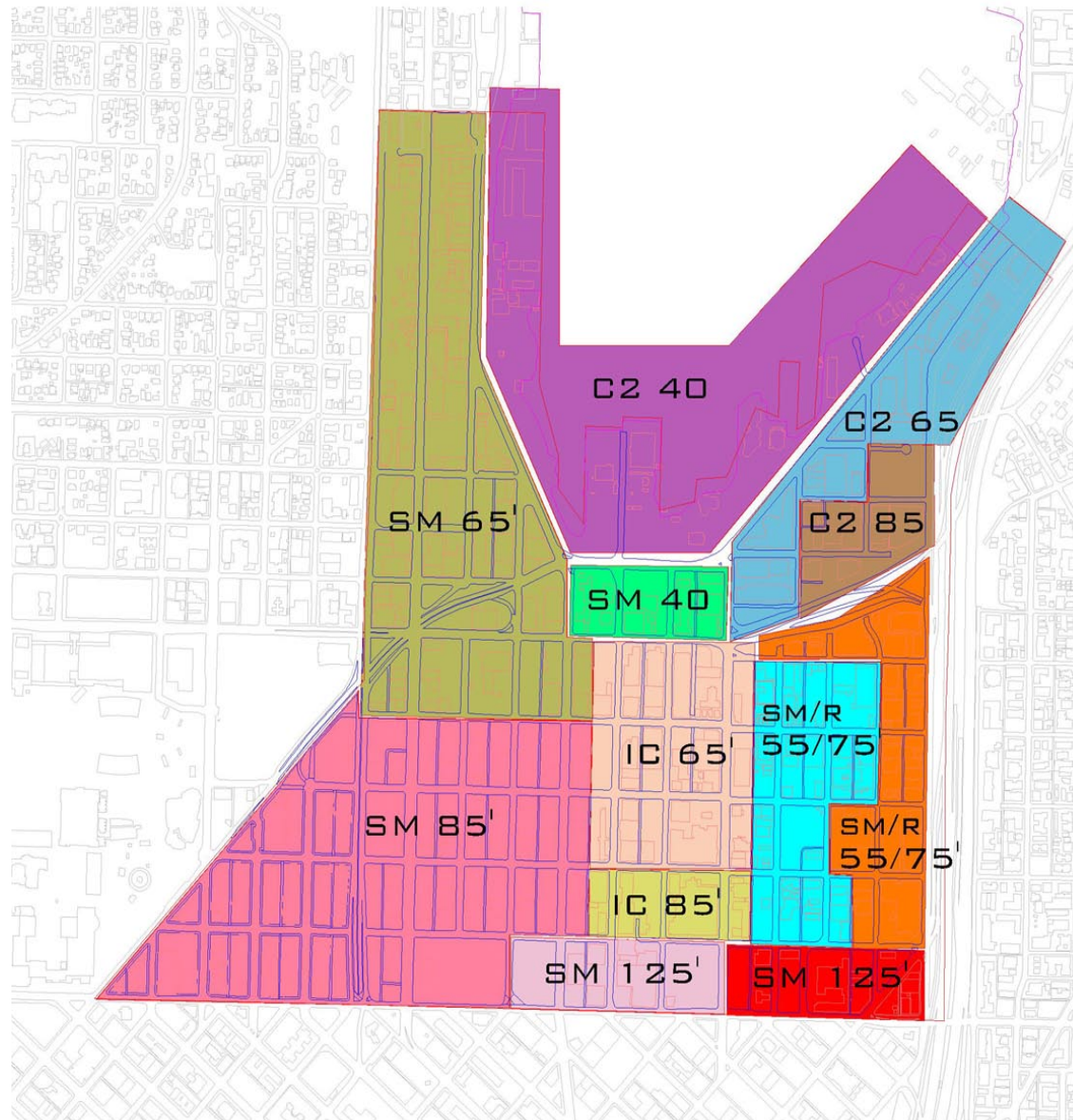
The tool generated facilitates future discussion and analysis rather than recommendations for specific actions. The appendix includes a number of visualizations from this model and could be used for generating future recommendations.

Appendix A

Maps and Visualizations

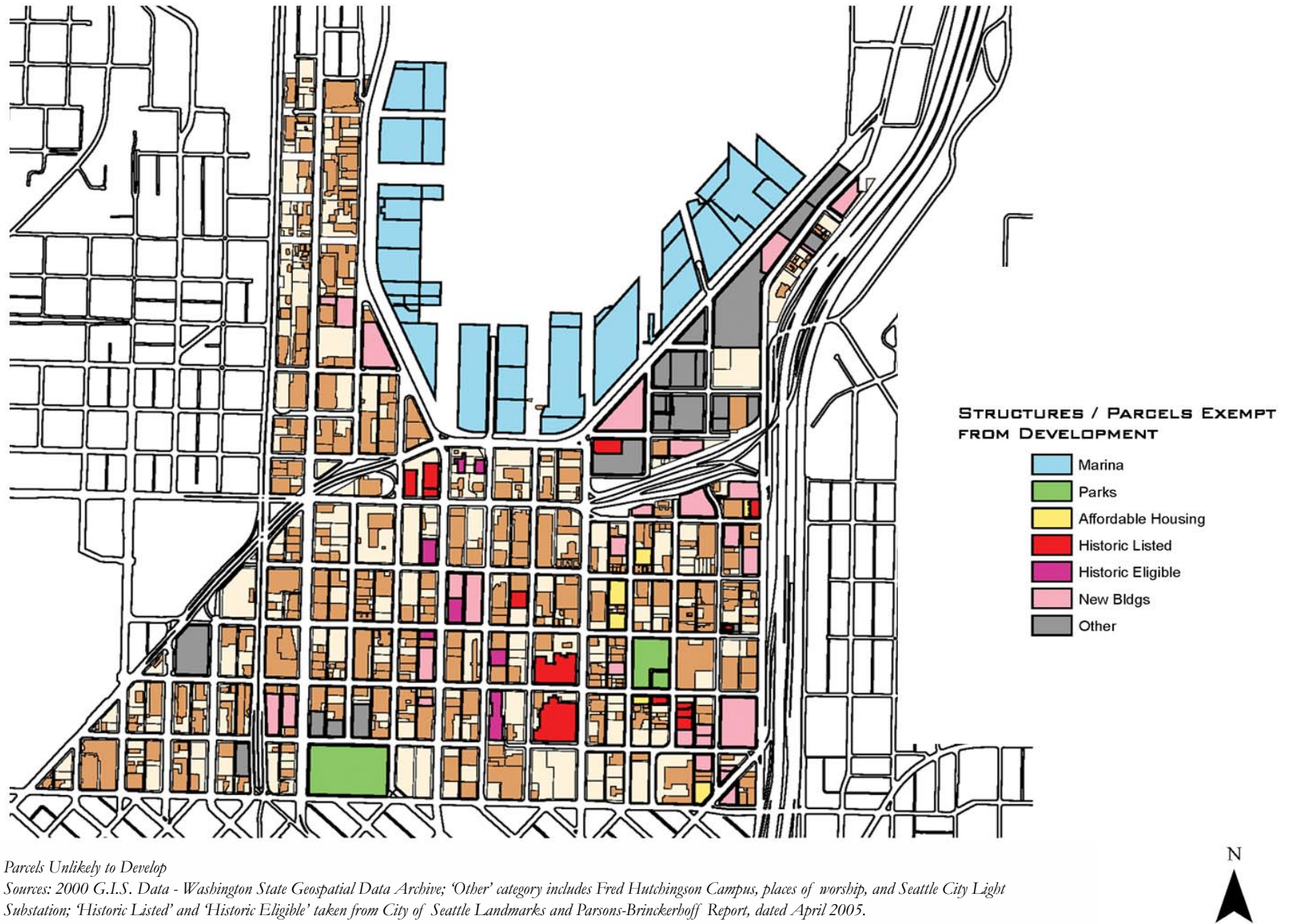


Map of Current Zoning

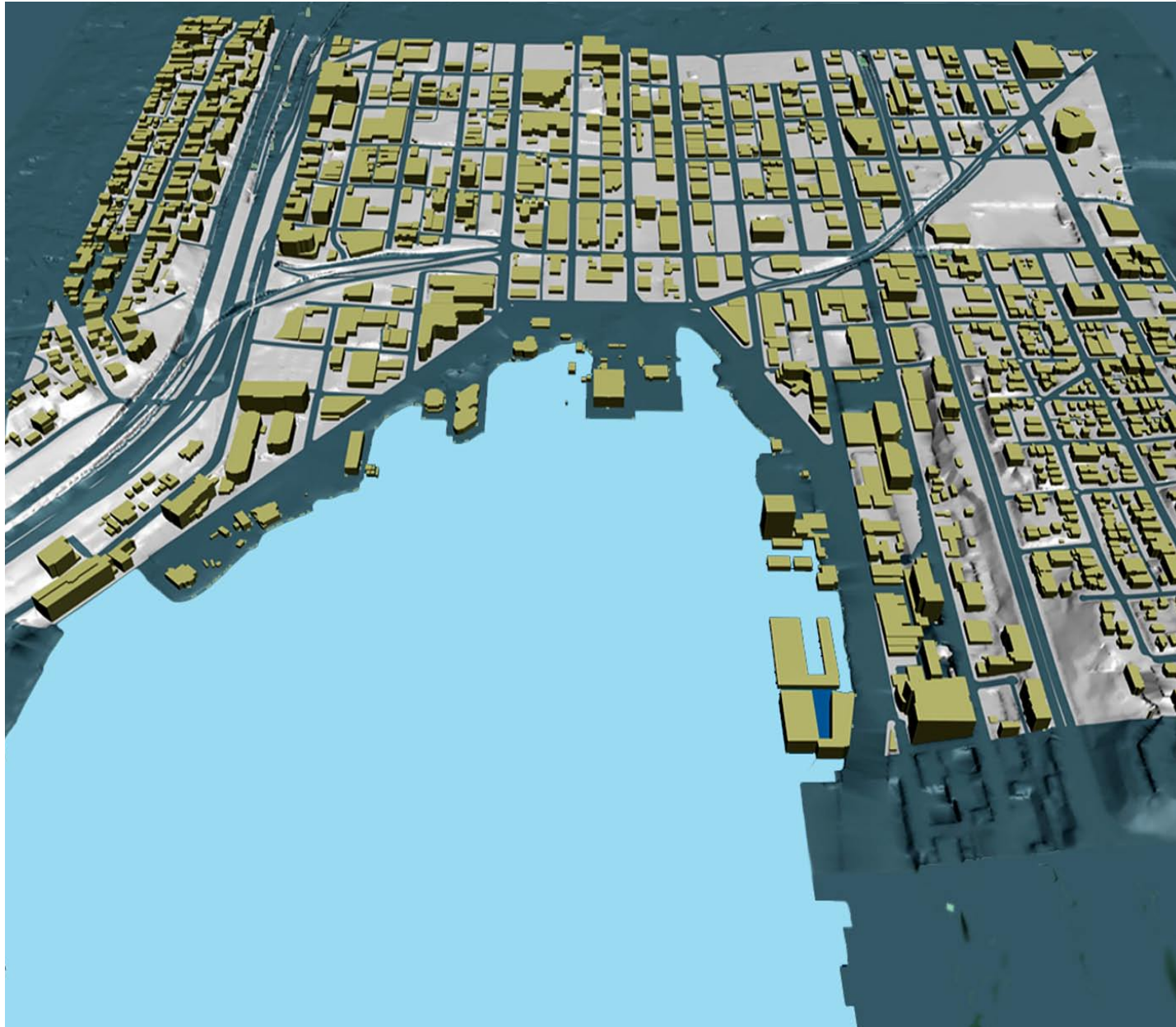


*South Lake Union Zoning Map
Sources: 2005 Zoning Code Amendments*

Map of Parcels / Structures Not Likely to Develop



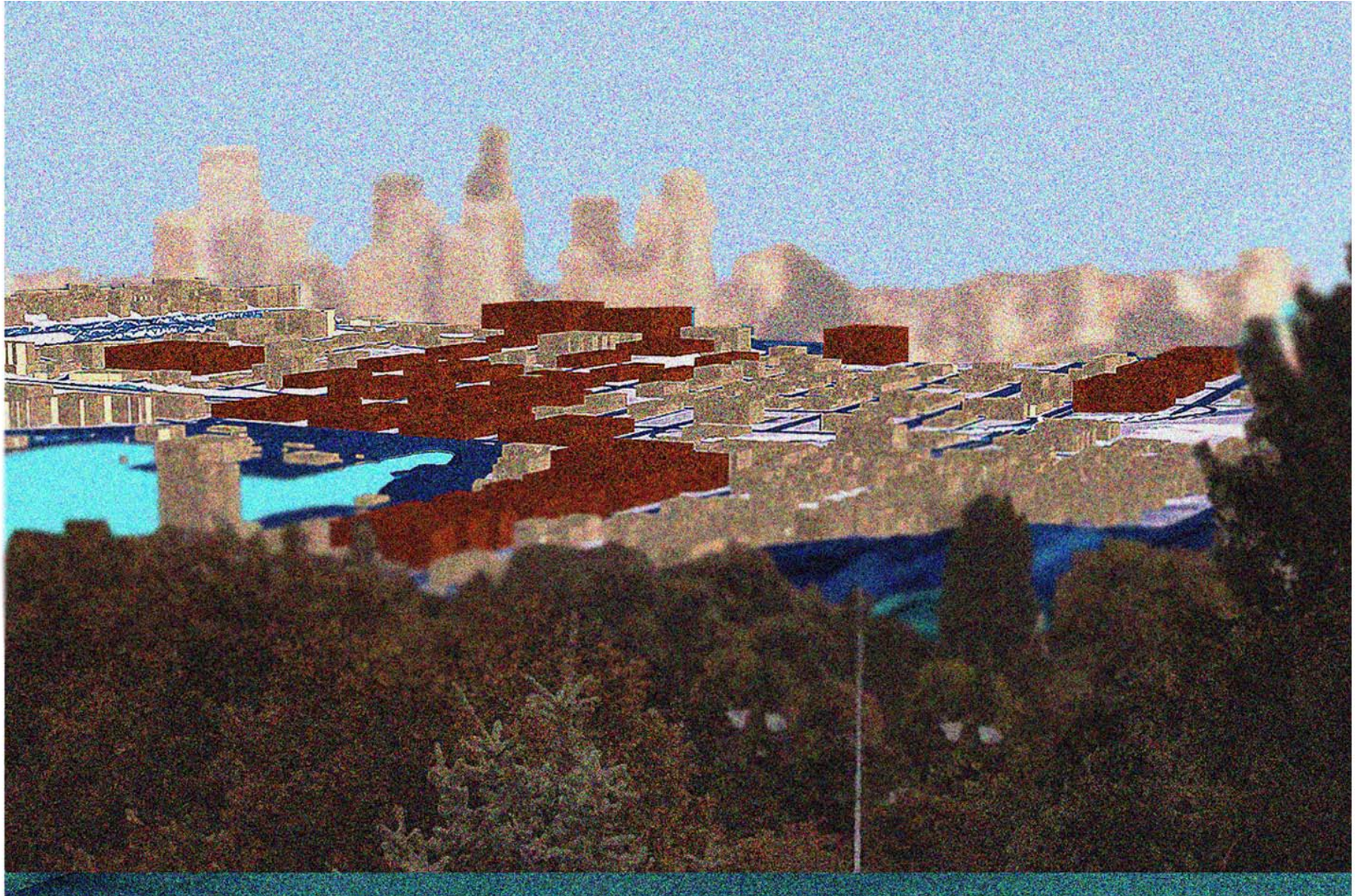
View of Existing Urban Form



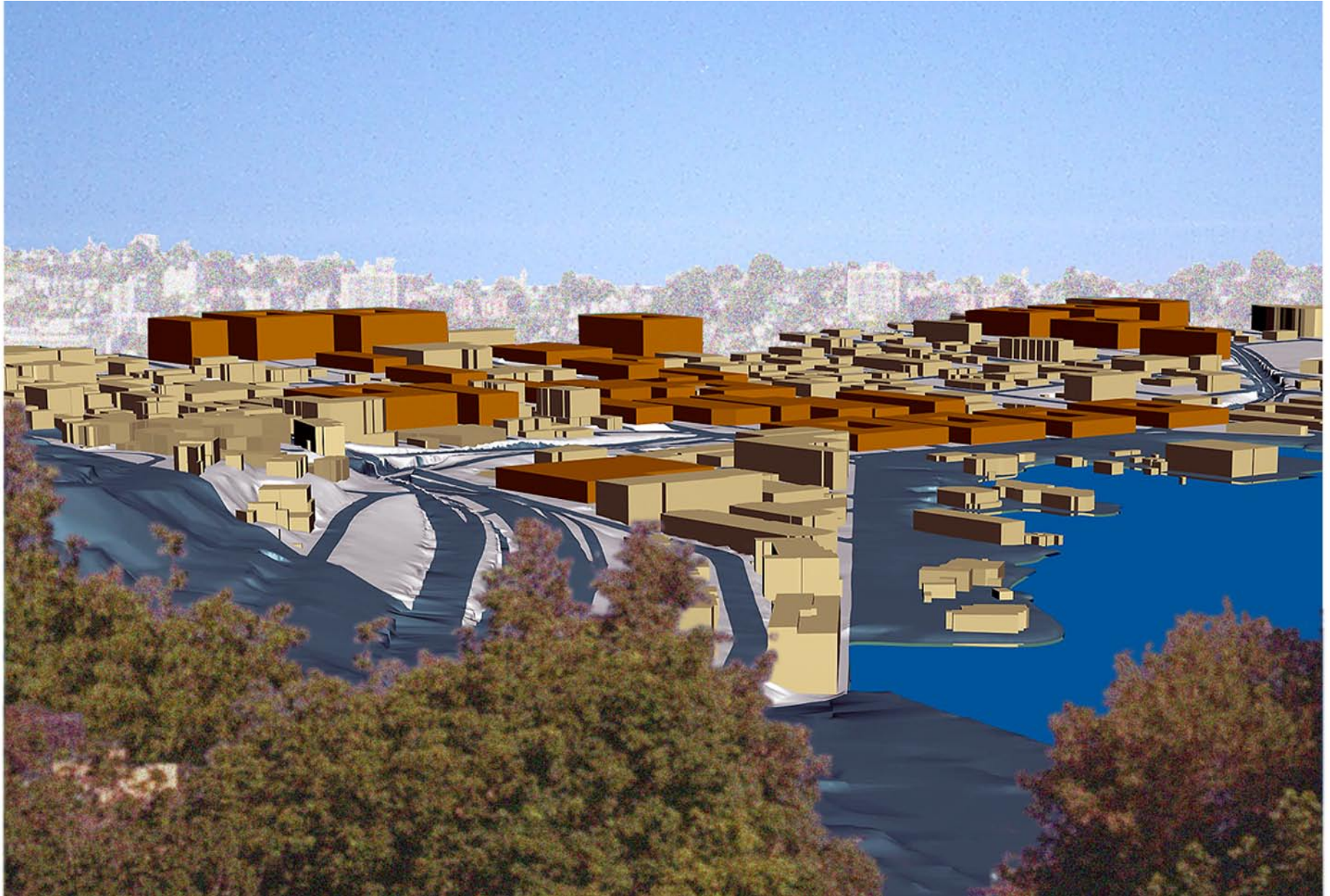
View from Lake Union - Zoning Buildout



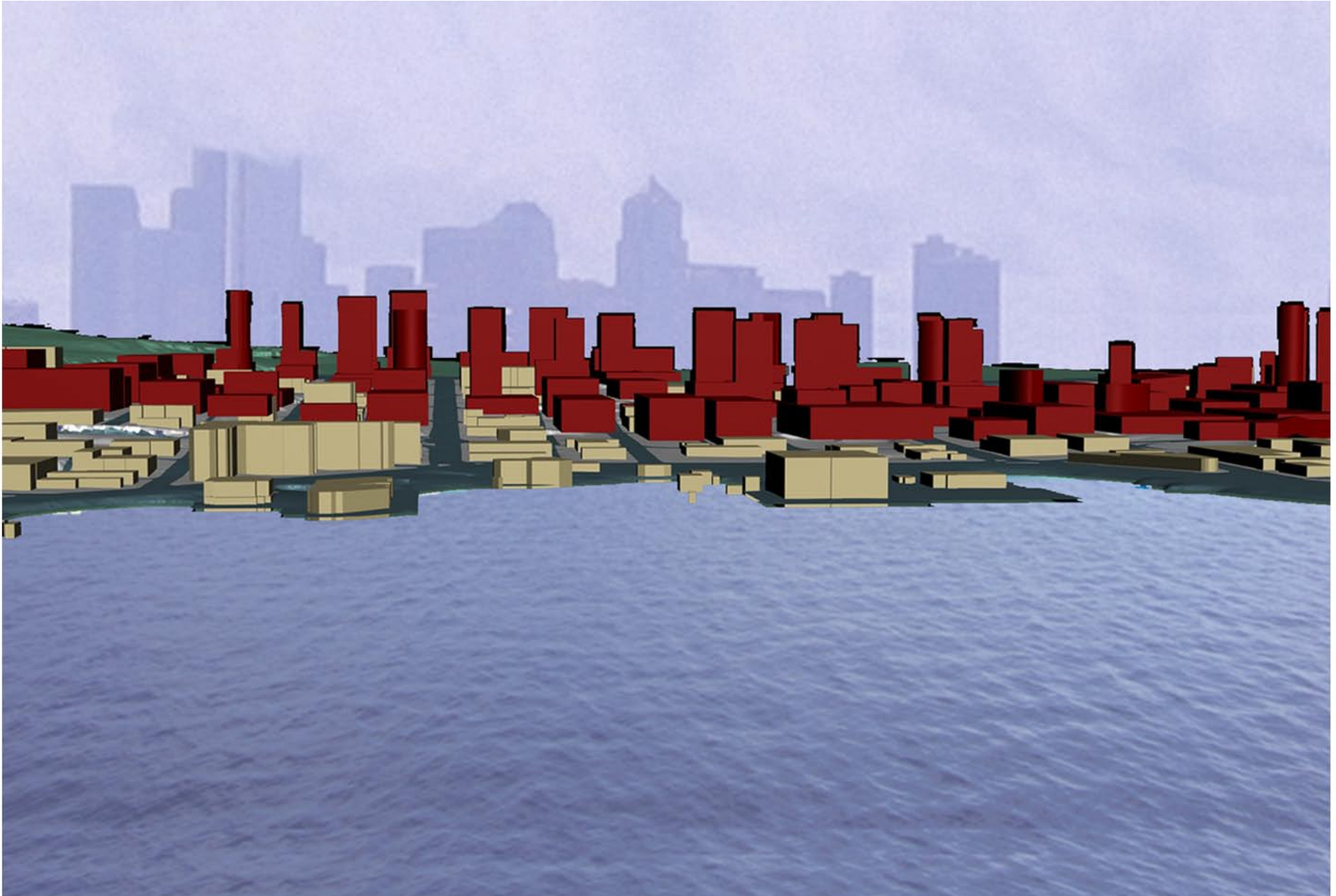
View from Queen Anne - Zoning Buildout



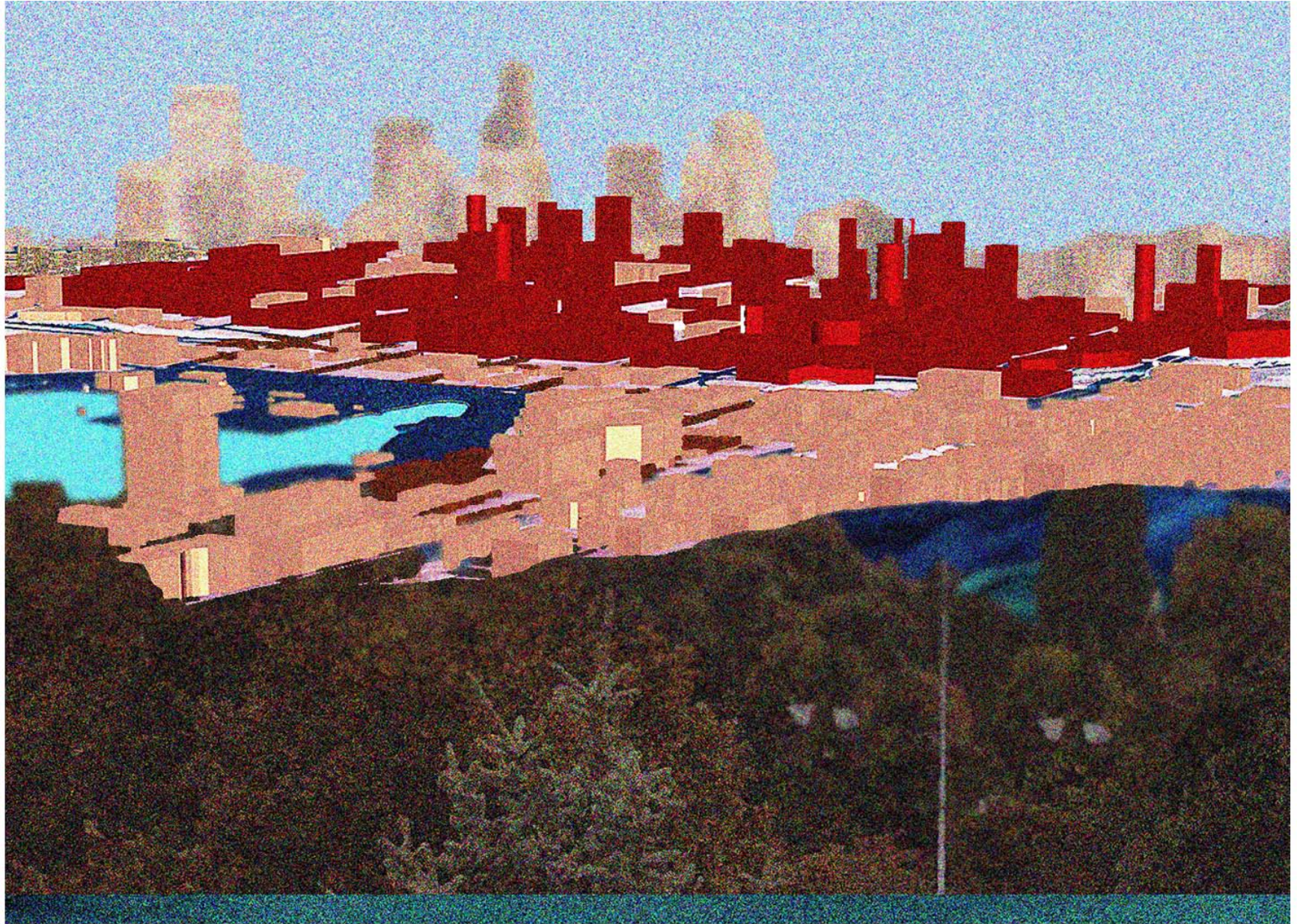
View from Capitol Hill - Zoning Buildout



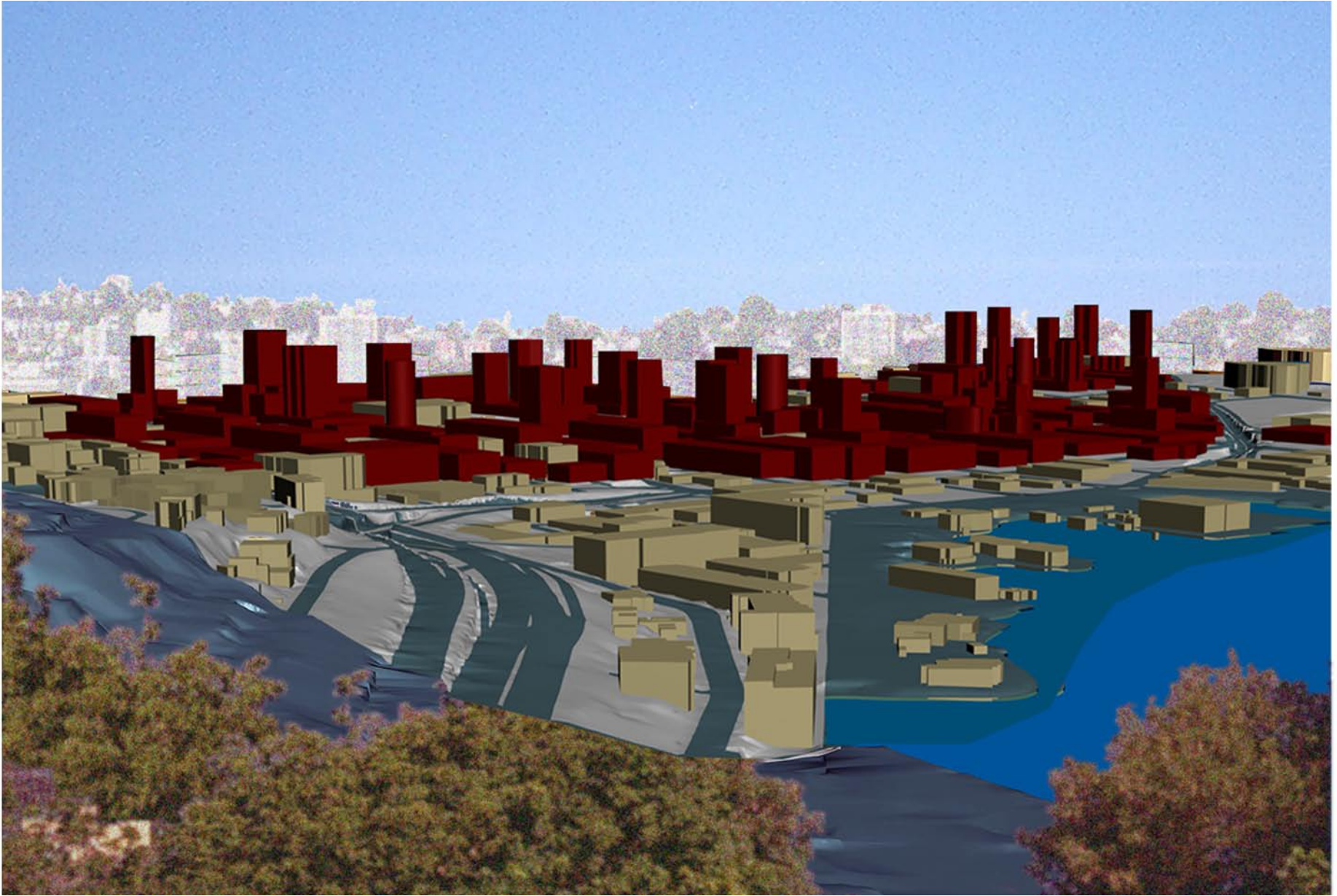
View from Lake Union - High-Rise Alternative



View from Queen Anne - High-Rise Alternative



View from Capitol Hill - High-Rise Alternative



Housing



Executive Summary

The housing section focuses on housing issues within the South Lake Union neighborhood and provides a set of concrete guidelines for housing development in the area. This report identifies and evaluates potential strategies for the neighborhood that promote a diversity of housing types across a range of incomes, accommodating both the current population and expected future growth. This analysis expands on previous research and is the result of collaboration with other University of Washington Department of Urban Design and Planning research groups. The final recommendations and implementation strategies are the result of this research, conducted for the City of Seattle, with a goal of integrating a greater level of housing diversity into the South Lake Union (SLU) community. This is both for the benefit of those who currently call South Lake Union home as well as those who will do so over the next twenty years.

The key recommendations made to the City of Seattle consist of:

- Using developer incentives to increase the attractiveness of constructing affordable housing units in conjunction with market rate units
- Utilizing employer incentives to promote a sustainable community of those that both live and work in the area.
- Leveraging home ownership programs to create a balance of owner and rental housing diversity
- Developing ideas that could promote a greater number of families to move into the South Lake Union neighborhood, which is necessary for achieving a vibrant and diverse community
- Encouraging the communication and cooperation between all developers (both for- and non-profit) to successfully create a diverse neighborhood.

Introduction

At the beginning of this project, the housing group assumed that for-profit developers would produce adequate market rate housing. So, the need for a greater diversity in both housing types and affordability was the primary focus, and there was concern that without proper incentives, the market would fail to develop housing for those earning below 80% of median income and other socioeconomic groups with special needs. The vision for a thriving and vibrant South Lake Union community is an achievable one if the area provides housing for all: families, seniors, singles, and young couples of all income levels. There should be a wide variety of housing options for those that would like to move into this up-and-coming neighborhood. Accommodating growth while maintaining affordability is a difficult outcome to achieve without innovative policies, regulations, and processes, yet these are necessary for the South Lake Union community to become a success. This research and analysis compares housing and population statistics from the top cities in the Biotechnology industry: Boston, Philadelphia, San Diego, San Francisco, and Washington D.C to assess the type of people and housing needs that could become a part of the South Lake Union neighborhood, given its potential to become a biotech center.

Additionally, the projected density and number of dwelling units, as identified in the Sommers report, has been compared to the projected population, as identified by Seattle City's Comprehensive Plan to analyze the extremes of the housing type composition and diversity. The housing group also focused on the different housing organizations that could have a potential role in the development of the South Lake Union neighborhood. An outline and strategy has been provided for the possible coordination between these organizations, either individually or through partnerships, to meet the neighborhood's future housing goals. This report includes a table of examples of ways in which Seattle and other cities have promoted housing affordability and provided for a variety housing types. The table includes ways of achieving necessary housing diversity through topics such as developer incentives, increasing affordability and home ownership, and family housing.





Analysis

Housing and Population Demographic Analysis

Method

This report includes an analysis of Census 2000 data for comparable census tracts that contain similar employment composition as that expected in the South Lake Union area. The biotechnology sector is a major focus of future development in South Lake Union. According to Paul Sommers' report *Potential Economic and Fiscal Impacts of South Lake Union Development*, thirty-five percent of future land development is projected for biotechnology use by 2024¹. A critical component to developing South Lake Union into a sustainable neighborhood is achieving the goal of allowing people to live near their workplaces. This analysis identifies those areas that are attractive to employees of the biotechnology sector.

This analysis uses the first six of the top 12 cities identified by the Miliken Institute's study of the top 12 biotech metro areas— San Diego; Boston; Raleigh-Durham-Chapel Hill; San Jose; Seattle-Bellevue-Everett; and Washington, D.C.

² Census data was obtained for all census tracts fully contained within the boundaries of their respective metropolitan statistical area (MSA) or primary metropolitan statistical area (PMSA). These six P/MSA's contained a sum of 3,425 census tracts. These 3,425 census tracts were narrowed down further by the number of "employed civilian population 16 years and over: professional, scientific; and technical services", as indicated by the US Census Bureau. Those which contained the highest values were considered desirable as they indicate the areas with the highest concentration of employees most similar to those South Lake Union expects to attract via growth of the biotechnology sector. To create a manageable amount of data for analysis, the 200 census tracts that reported the most employment in the professional, scientific and technical services within each P/MSA were used for analysis. All others were discarded.

For example, Chatham County's Census Tract 208, in North Carolina, reported 358 people employed in the indicated sectors. For this category, this is among the top 200 reported amounts for all of the census tracts within the Raleigh-Durham-Chapel Hill MSA. Consequently, Census Tract 208 qualifies for analysis and is retained. This process guaranteed that 1,200 census tracts would be observed for analysis; the 200 hundred census tracts containing the most of the reported category, for each of the six P/MSAs. Again, the assumption being made is that South Lake Union will have a high number of this employment sector as a result of the increased biotech and office jobs that will be created in the area and thus these census tracts are more accurate comparables for analysis.

Finally, data was summarized in both table and graph form containing the P/MSA's mean value of all the comparable census tracts that remained. This created a composite of the 200 census tracts within a P/MSA that most resembled the employment composition expected in South Lake Union. For example, in the category "Employment / Households," two hundred values were averaged for each of the six P/MSA's for analysis. This data was then compared to mean values derived from Census Tracts 72 and 73 in King County, Washington, which comprises the majority of the South Lake Union neighborhood.

Discussion

The census tracts with a high population of scientific, professional & technical



service employees contain many similarities regardless of the metropolitan statistical area in which they are contained in contrast to the two census tracts that comprise the South Lake Union area.

Small household size

Population totals for the analyzed areas demonstrate that mean populations for these census tracts range from 5,158 in the Seattle-Bellevue-Everett metropolitan area to 7,394 in the Washington, D.C. metropolitan area, while the mean population for South Lake Union's comparable census tracts (72 & 73) is 2,651. The anticipated growth in the area of 8,000 households by 2024 will create a population similar to those of the other metropolitan areas. The data also shows that the South Lake Union area contains many smaller households than the comparable areas. This is highlighted by the fact that while population totals are drastically lower in South Lake Union mean values for households do not suffer such a deficiency. This is buttressed by the extremely low number of families in South Lake Union. So, with a comparable number of households, yet a much smaller total population and smaller number of families; a logical inference is that this household size is comparably less. This trend is reflected in the existing housing ownership and housing stock.

(see Housing - Graph #1, appended)

High proportion of rental units decreases bedroom number

At a ratio of eight rental units to every owner-occupied unit, housing in South Lake Union is heavily skewed toward rentals. In all of the comparable areas of analysis, the balance between owner-occupied and renter-occupied units is approximately 3:2 to 4:2. The comparable areas of analysis also contain a much more natural distribution of the number of rooms within housing units with means slightly weighted towards the greater number of rooms. South Lake Union contains a disproportionately high amount of 1-, 2-, 3-bedroom units, most likely a result of the high number of rental units in the area.

(see Housing - Graph #2, appended)



SLU has a greater number of housing structures with 50 or more units. There is also a great divergence in housing type between South Lake Union and the other metropolitan areas. Mean values of detached, single-unit housing structures among the six metropolitan areas range from 41% to 60%. Washington, D.C., notably has 23.6% attached single-unit structures, the highest of all, as well as the second greatest value for 50+ unit structures at 14.6% of its housing stock. The majority of South Lake Union's housing stock is in the 50+ units structure category at 61.3%.

(see Housing - Graph #3, appended)

SLU contains mostly older and newer buildings with little in-between. Lastly, South Lake Union's housing stock contains older buildings (30.4% built in 1939 or earlier), second to only Boston (39.4% built in 1939 or earlier). The majority of the metropolitan areas show a large portion of their housing stock being constructed from 1980-1989; San Jose shows a slightly older build-up. Although South Lake Union does have a great amount of older housing, the recent development in the area is visible, as a substantial amount of residential housing has been built evenly in the decade prior to 2000. This data shows that South Lake Union did not develop during the years of the comparable areas.

(see Housing - Graph #4, appended)

From this research, it is apparent that the housing and population composition of South Lake Union is incongruous with areas that report a large population of employed scientific, professional, and technical service employees. These areas tend to have a greater population and more families. They also have a housing stock one would suspect of such an environment: more rooms per unit, less units per structure, and slightly newer housing stock. The current and projected development in South Lake Union will bring about change to its current population and housing stock. Yet more analysis is needed to determine causality between desired population and housing stock characteristics so that implementation strategies can be proposed.

Identifying Housing Responsibilities and Coordinating Housing Related Organizations in the South Lake Union Neighborhood

There is currently no single organization that oversees housing issues and development in South Lake Union. Rather, multiple organizations ranging from

government to small non-profits and larger developers are involved in the creation of housing for the neighborhood. A common vision and a concerted effort on behalf of multiple organizations are especially important as the neighborhood grows to accommodate an expected 9,210 residents and 35,690 jobs by 2024. This section identifies various organizations that could play a role in developing and managing housing in South Lake Union. Identifying these groups provides an overview of their individual functions and responsibilities regarding housing in the neighborhood and offers a starting point for the exchange of information and the establishment of partnerships. These organizations can be organized into a consortium that oversees housing issues for South Lake Union.

Method

Research was carried out on public and private organizations to focus on housing issues and the functions/roles they play. Organizations that were pertinent to South Lake Union were studied in depth; unrelated organizations were ignored. The most useful and similar groups were then placed in a matrix and categorized by their organization type and potential housing role in South Lake Union. Categorization was based on information from each organization's website and on information provided by the 2004 Housing Development Consortium. This matrix enabled the housing group to identify major responsibilities and processes in bringing housing to the neighborhood and also provides some insight into opportunities for collaboration toward this endeavor.

Housing Responsibilities

The following responsibilities are associated with the organizations listed below, categorized by function, which includes acquisition (PA), development (PD) and management (PM), policy (POL), funding (F) and coordination (C), the specific roles of which are further explained below:

Property

Acquisition [PA]

- Acquire land that can be devoted to housing.
- Identify buildable or underused properties, which can include vacant parcels or parking lots.
- Work with land owners to identify properties that can be sold, donated or exchanged so that they can be used for housing.
- Acquisition can also employ land banking methods to acquire property for future use before any expected market values

appreciation.

- This responsibility can be held either by the Seattle Housing Authority or by housing developers, and possibly through partnerships with significant land owners.

Development [PD]

- Develop affordable and market rate housing.
- Work with policy-makers to see that requirements are met. These requirements can include affordability, design, density, height, etc.
- This responsibility can be held either by the Seattle Housing Authority or by housing developers.

Management [PM]

- Identify eligible tenants or owners
- Administer resident services such as training, referral or financial assistance for repair.
- Property maintenance
- This responsibility can be held either by the Seattle Housing Authority or by housing developers.

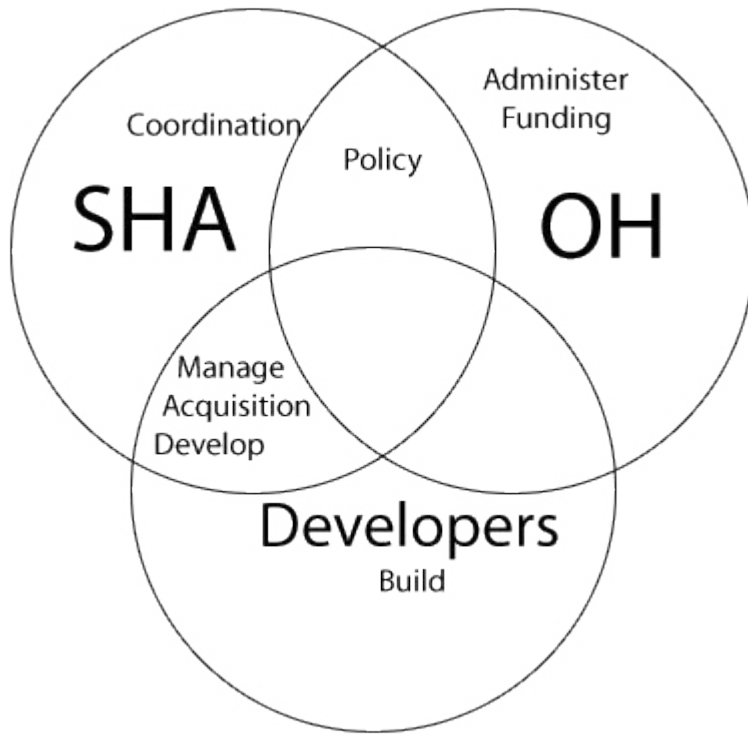
Policy [POL]

- Identify ideal housing targets specific to South Lake Union demographics. These include establishing appropriate densities, ownership vs. renting ratio, affordable vs. market rate ratio and balance of diverse housing stock.
- Identify and monitor affordability qualifications.
- Housing program development. Examples of such programs can include affordable ownership through land trusts and being a funding source for affordable housing residents.
- Identify and implement housing related incentives.
- Monitor the effects of policy.
- Policy responsibilities can be administered by either the Seattle Housing Authority or the Office of Housing.

Funding [F]

- Handle applications for grants, programs, funding. Responsibilities held by either the Seattle Housing Authority or developers.
- Administer and allocate funds. Responsibilities held primarily by the City of Seattle Office of Housing.
- Manage housing specific funds such as a city wide affordable housing trust. Responsibilities held primarily by the City of Seattle Office of Housing.





group to focus on property related responsibilities, emphasizing development and also participating in acquisition and management. The Seattle Housing Authority emerges as the best group to focus on property, policy and coordination, emphasizing property acquisition, ownership and management, and community outreach as well. Given its responsibilities, the Office of Housing appears to be the best group to handle the responsibilities related to policy and funding through such activities as identifying housing targets for the neighborhood or administering housing funds to developers and the Seattle Housing Authority. There may be some overlap in responsibilities between the different organizations. Despite any overlap, developers can primarily be associated with creation of housing, the Office of Housing can be associated with policy and funding and the Seattle Housing Authority can be associated with managing and owning. These concepts are best visualized in the diagram on the left.

A likely scenario, based on the discussion of partnerships and roles is as follows:

The Seattle Housing Authority can coordinate the identification of properties that are potential infill housing sites. These buildable lands can be vacant properties, parking lots or parcels where the building value significantly exceeds the land value. Working with land owners, the Seattle Housing Authority can coordinate with the Office of Housing in developing and using incentives for promoting affordable housing. The Seattle Housing Authority can either purchase these parcels and land bank them for future use or solicit developers for housing development

Coordination/Partnerships

- City government
- Community organizations
- Housing organizations
- Neighborhood businesses, organizations and institutions
- These responsibilities can primarily be held by the Seattle Housing Authority

Partnerships/Roles

The primary groups that will be or are currently involved with South Lake Union housing issues include the Seattle Housing Authority, City of Seattle Office of Housing, and various housing developers, including both non-profits and for-profits. These groups are supported by business interests in the neighborhood, as well as by multiple local and national programs and financing institutions. Having identified their major responsibilities, housing developers emerge as the best



Organization Matrix

Organization Name	Type	Associated Responsibility Types	Potential Role in SLU
Seattle Housing Authority	Housing Authority	PA, PM, C	Own and manage housing
King County Housing Authority	Housing Authority	C	Information
City of Seattle Office of Housing	Government	Pol, F, C	Administer funds and coordinate housing policy
Capitol Hill Housing Improvement Program	Non profit housing developer	PA, PD, PM	Develop and manage workforce rental housing
Housing Resource Group	Non profit housing developer	PA, PD, PM	Develop and manage workforce rental housing
Plymouth Housing Group	Non profit housing developer	PA, PD, PM	Develop and manage transitional housing
Archdiocesan Housing Authority	Non profit housing developer	PA, PD, PM	Develop and manage housing for homeless, elderly and physically and mentally disabled
Common Ground	Non profit housing developer	C	Provide support and consulting to other organizations for affordable housing
Lutheran Alliance to Create Housing	Non profit housing developer	PA, PD, PM	Develop and manage affordable rental and cooperative housing
Low Income Housing Institute	Non profit housing developer	PA, PD, PM	Develop and manage affordable housing for low income, disabled, elderly and homeless. Also provide support services to tenants such as training and referral
Artspace Projects, Inc.	Non profit housing developer	PD	Develop affordable housing for artists
Historic Seattle	Non profit housing developer	PD	Develop housing through preservation and rehabilitation
Homestead Community Land Trust	Affordable housing ownership program	C	Promote and coordinate affordable home ownership
HomeSight	Affordable housing ownership program	C	Promote and coordinate affordable home ownership
Vulcan Real Estate	Private development company	C	Significant land owner. Implement housing-related incentives for employees.
University of Washington biotech companies	Institutional organization	C	Implement housing-related incentives for employees.
neighborhood businesses	Private organization	C	Implement housing-related incentives for employees.
Enterprise Social Investment Corporation	Lender	F	Funding source
Federal Home Loan Bank of Seattle	Lender	F	Funding source
Homestead Capital	Lender	F	Funding source
Impact Capital	Lender	F	Funding source

Organizations Matrixproposals. The Office of Housing will be involved again at the policy level developing incentives that can be applied to the developments for construction of certain housing types, include affordable housing or implementation of preservation or sustainable practices. Upon completion of a development, the Seattle Housing Authority can partner with developers to manage the properties, with policy input from the Office of Housing.

In moving forward, it would be unrealistic, not to mention costly, to create a single organization that would oversee all housing responsibilities for South Lake Union. Rather, the neighborhood can benefit from a collaboration of different organizations that each have distinct characteristics and contributions to housing. These organizations must rely on each other to meet the neighborhood's future housing goals.

Diversity of Housing Affordability and Type

It is necessary to ensure an appropriate balance of market rate housing and affordable housing, as well as a variety of different housing types, for South Lake Union to evolve into a vibrant neighborhood. The focus of this section relies on the case study research of Seattle and other cities' abilities to create programs that provide for the betterment of the community in terms of housing. In order to make recommendations to the City of Seattle that promote more diverse housing, the housing group has developed an implementation strategy of picking and choosing from the case studies most applicable to South Lake Union neighborhood. Vital goals for the City to achieve include employee incentives, increasing affordability and home ownership, developer incentives, family housing, senior housing, preservation, sustainability, and multi-modal development opportunities.

Method

Initial research was broad and attempted to identify cities that have successfully implemented diversity and affordability programs. Programs that were most innovative, applicable and achievable were given more attention in our research. We then focused on different case studies from Seattle and other cities that illustrate these programs, and that promote the type of housing that is necessary to grow the South Lake Union neighborhood into a destination place and an urban center. The case study table format provides a user friendly way for those interested in particular topics to quickly gain access to research and ideas regarding South Lake Union (see Housing – Case Example, appended).

Also, a brief analysis was conducted on housing types given probable densities, and projected growth in the area. The model (see Housing – Illustration, appended) creates three scenarios of predominately low, middle, or high density housing types in South Lake Union. This model does not take into consideration current or planned zoning requirements, but instead is a cursory analysis that lends insight into the type of housing that the land area of South Lake Union could support, and the resulting population that could be housed given those housing types. Housing densities were estimated using information provided by the Urban Land Institute's *Residential Development Handbook*.

Affordable Housing

Housing is considered affordable when it consumes 30% or less of a household's income. Regardless of income level, housing is determined to be unaffordable if this threshold is broken. When looking at housing affordability, it is important to consider the range of incomes and how incomes affect the housing needs. In addition, income levels can be classified following way³:

- “Low-income household” is any household earning up to 80% of the Seattle median-income, as defined by the Federal Department of Housing and Urban Development (HUD)
- “Very low-income household” is any household earning up to 50% of the Seattle median-income
- “Extremely low-income household” is any household earning up to 30% of the Seattle median-income
- “Assisted household” generally means owner-occupied or rental housing that is subject to restrictions on rent or sales prices as a result of one or more project-based governmental subsidies

There are some obstacles to providing affordable housing; primarily these are regulatory, financial, and social. Excessive regulations may negatively affect the supply of affordable housing, such as some specific zoning regulations in South Lake Union. One concern regarding financial obstacles is that developers are inclined to build more expensive units, and allow the older housing stock to “trickle down” into lower price ranges, instead of creating affordable housing for that particular market. There are several ways to attract developers to provide more affordable housing, such as establishing a partnership between developers and government and providing more funding or incentives for developers. Finally, NIMBY-ism may occur when siting affordable housing. Therefore, attractive and innocuous affordable housing must be established early to allay concerns.



Affordable housing should be provided near places of employment, in designed growth areas, and in areas already developed. Since South Lake Union is projected to grow by 16,000 jobs and 8,000 households by 2024, an adequate amount of new housing should be built in South Lake Union so that the supply can suitably meet the demand that is expected over the next 19 years. To create more affordable housing, the local government, private sectors, and other organizations should consider housing in employment centers, reduce the costs of construction, and expand more housing affordability programs.

Developer and Employee Incentives

One way to combine employment and housing is to provide more housing near employment centers. The employment can stimulate the housing market, and the housing market can support the neighborhood businesses. The advantage of housing near jobs is the reduction of commuting time and reduced traffic congestion. Several case studies illustrate developer and employee incentives. Citizen Bank in Boston implements a home buyer assistance program to provide funds to employees to live near their work; Maryland Department of Housing and Community Development's "Live Near Your Work" plan pulls funds from the State, from employers, and from local government to assist taxpayers in purchasing houses near places of employment. The most common developer incentives are tax exemptions and affordable housing incentive programs.

Housing Diversity

A brief analysis (see Housing – Illustration, appended) shows the potential housing types given the projected growth in the area. Utilizing the projected housing preferences of those expected to be employed in South Lake Union, it is recommended that a balance be sought between attracting families and homeowners, increasing densities, and providing enough units for the projected population. The data shows that higher housing densities are required to support the projected population for 2024. A diversity of housing types should be provided to create a

sustainable neighborhood that provides housing for those who work in the area. South Lake Union is encouraged to provide a mix of affordable and market rate housing types to accommodate the wide range of income levels and tastes. The encouragement of home ownership opportunities promotes a sense of community within a neighborhood.

Not only should affordable and family housing be developed in South Lake Union, but dwellings for seniors and the homeless should also be provided. Both senior and homeless housing are target groups with special needs housing. In addition, King County has passed a homeless continuum care plan to ensure a comprehensive approach to addressing homelessness. This program exists to provide support services that help people transition from homelessness to permanent housing. It is also intended to act as a safety net to prevent recipients from regressing back to homelessness. In homeless housing communities, the goal is not only to provide a place for living, but also offer job training, child and health care, and provide retail outlets that provide food and clothing. In addition, homeless housing should provide more intensive site management to facilitate better communication between communities and developers.



Preservation

The purpose of housing preservation/adaptive reuse is to preserve and expand affordable housing for low-income individuals and families. Several strategies can be employed to achieve affordable housing opportunities. Chief among these is technique assistance to local organizations, property owners, and housing developers through government, and financial negotiations among government, developers, and property owners. South Lake Union should encourage the preservation of existing low-income housing by providing housing programs and funds to increase the attractiveness of maintaining these particular buildings in their current function. Preserving this housing stock in South Lake Union would help foster a sense of community, promote economic development in the neighborhood, and decrease the amount of new development that would need to meet affordability goals by not having to build replacement housing.

Sustainability

The South Lake Union neighborhood has the potential to become a sustainable living area. Sustainable building merges sound, environmentally responsible practices to look at the environmental, economic and social effects of a built project as a whole. The entire life-cycle of the built environment is examined (planning, design, construction, operation and maintenance, and demolition or disassembly). To remain competitive and continue to expand and produce profits in the future, the building industry is learning to address the environmental and economic consequences of its actions. Mayor Nickels has made sustainability a priority within the entire Seattle region including South Lake Union. The Cascade Neighborhood Council (CNC) also envisions South Lake Union as a leader in embracing sustainability practices⁴.

This degree of sustainable awareness and presence in the South Lake Union neighborhood will bring new focus to the area as it will become a leader in green building and sustainability. Sustainability in housing can encompass green building, with LEED



Certified builders, the use of green roofs, recycled or alternative materials, solar energy, and energy-efficient appliances. Developing South Lake Union into an area where people actually do live and work is also an important aspect of understanding and integrating sustainability into the neighborhood.

Buildings have a profound impact on our health, economy and natural environment, using large amounts of energy and materials, while accounting for 30% of all waste in landfills. By building green, developers can mitigate these regional and global impacts, while saving money for themselves and their tenants.

Benefits to tenants and the building owner include:

- Reduced energy and water bills
- Reduced maintenance costs
- Better indoor air quality

Regional benefits include:

- Stormwater retention
- Better waste management
- Less pressure on aquifers and other fresh water resources

Global benefits include:

- Resource protection
- Better air quality and reduced emissions
- Slowing down climate change
- Growth in the market for recycled materials

In affordable housing developments, green building can alleviate certain problems particular to low-income residents. The improved indoor air quality resulting from a more rigorous selection of non-toxic building materials benefits the health of residents. Meanwhile, lower utility bills have the greatest value to low-income residents, who on average pay 25% of their post-rent income for basic services.⁵

Multi-Modal Development

The South Lake Union neighborhood has the potential to become an area focused around public transportation, and thus an ideal community that is helping to reverse detrimental environmental trends of single-occupancy vehicle (SOV) commuting and private auto use. This type of community also addresses sustainability and conservation. The first necessary step to achieve a multi-modal development is to provide a greater range of public transportation options for those that live and work in the area. The creation of the streetcar and having a light rail transit

stop will greatly enhance this type of development as it concentrates on compact residential and commercial mixed uses.

A great success story of this type of development is “The Crossings” in Mountain View, California. This project includes mixed-use development, the encouragement of redeveloping, renovating, and preserving older, obsolete commercial uses, narrow streets to foster a community safe sense of place, and a variety of housing ranging from townhomes, apartments, and single-detached with 15% of the units in the affordable price range. Three parks and a day care are also located nearby to provide necessary amenities for families. South Lake Union can become this type of thriving multi-modal destination area if there is a focus on public transportation within the community.

Recommendations

This report recommends that the City of Seattle Department of Planning and Development utilize a number of the incentives outlined in the case example table (appended) to ensure innovative development techniques for the South Lake Union neighborhood. Many of these incentives can and should be combined to create a diverse and affordable housing market, one that is necessary for the vibrant community envisioned for SLU.

Outlined below are the developer incentives that are already being employed in various parts of Seattle that should also be extended to the South Lake Union neighborhood to encourage greater affordability of housing units. It is the City of Seattle’s responsibility to educate and recommend that private developers use these incentives in order to preserve and increase the number of affordable housing units in SLU:

- Downtown Density Bonus Program – city permits increased density in return for a set aside number of housing units
- Property Tax Exemption Program – developers are exempt from the property tax if they provide a certain number of units for low and/or moderate income tenants
- Credit Enhancement Program – King County will provide a credit enhancement which will reduce financing costs for housing developments – either market rate of affordable developments. In exchange for project savings, the developer agrees to set aside affordable housing units within that particular project

- Transfer of Development Credits (TDC) program – consists of a “sending area,” where a reduction of the number of units are to be built in rural King County, and a “receiving area,” where the right to build those units is transferred to a new residential (mixed-use) project. The “sending” owner is paid to keep the land undeveloped, while the “receiving” owner buys the credit that allows additional development beyond what the zoning allows – these affordable housing units could have a preservation term of a specific number of years to ensure the preservation of affordable housing

Some other developer incentives that the City of Seattle Department of Planning and Development could consider would be to increase the number of affordable housing units in the South Lake Union neighborhood by decreasing the direct costs of development. These incentives include:

- Providing direct subsidies to affordable housing developers
- Expediting permit processing
- Financial incentives for land acquisition/donation to non-profit organizations

The City of Seattle should encourage more home ownership opportunities in order to promote a sense of community, to encourage investment in housing, and to minimize displacement of low-income residents due to gentrification of neighborhoods⁶. To achieve this goal, there are some land trust options that the City of Seattle should consider in order to provide a balance of rental units and ownership units:

- Homestead Community Land Trust in Seattle – a program that promotes affordable home ownership by taking the cost of the land out of the purchase price of a home. This could possibly be extended to proposed townhouse units in the South Lake Union neighborhood
- Citizens Bank Housing Community Program in Boston – to create neighborhood stability and lower costs for non-profit developers to build affordable units for home ownership. This type of program, in conjunction with the Office of Housing and real estate companies (in Seattle) could produce a consistent source of funding for non-profit developers to efficiently build affordable home ownership units

Another focus of the housing group is to attract families to SLU. By attracting families, a more diverse and sustainable community is created; one that is safer



and more vibrant which can buffer any swings in biotech. Using the Wayfinding Group's analysis of different amenities and convenience services within the South Lake Union neighborhood, it is apparent that the City of Seattle Department of Planning and Development should address the lack of schools, daycare facilities, community centers, grocery stores, and pedestrian-friendly access, as well as better and more public transportation options, to encourage families to move into the neighborhood. Whole Foods Market and a daycare, which are being built at the present time, will increase the attractiveness of the neighborhood for families, but more work will still need to be done to produce the thriving community foreseen in South Lake Union's future.

- In Vancouver, British Columbia, high-density housing for families and children was achieved by providing reasonable and effective access to essential community services and recreational amenities, which succeeded through discussion and implementation with the city, parks, schools, and other services to determine the capacity and/or existence of these needed family amenities. Seattle also needs to go through this process, using a wayfinding type of analysis to locate the best areas for family living, and thus, provide more apartment units (3-, 4-bedroom) or townhouses to increase the supply of larger sized units. These would need to be available once the amenities and other community services are designated and located within the community. Part of this analysis would need to consider the best overall densities and buildable lands that would encompass family living into the housing scheme in SLU.
- The City should look into creating a program that provides incentives for projects that include units with multiple bedrooms, perhaps a start could be to amend design guidelines to include specific residential design elements that could be attractive to larger households

A vibrant and sustainable community needs to have “eyes on the street” at all times of the day. This can be achieved in South Lake Union through both introduction of retail uses on the street level as well as the production of a variety of housing types. This will add to the neighborhood character and accommodate for diversity of lifestyles and family sizes. The creation of an Employer Incentive Program through the City of Seattle could achieve this type of prosperous community:

- An employer incentive program would be for city officials to reach out to major institutions within the South Lake Union area (University of Washington, Fred Hutchinson, incoming biotech corporations, banks, and

research facilities) to encourage them to offer home ownership assistance to their employees as an incentive to live close to where they work in the South Lake Union neighborhood, and in return the employer would receive a tax credit for employer contributions. The goal of this incentive program is the production of healthier lifestyles and the reduction of single-person transportation (addressing multi-modal development and sustainability of the neighborhood). This program is currently being proposed in Boston.

- “Live Near Your Work,” Maryland – is a program that encourages employees of MD businesses and institutions to buy homes near their work place. The state, employer, and local government each contributes \$1,000 of funds to be used for a down payment on a home or towards the closing costs associated with a purchase.

Additionally, this report recommends that the City of Seattle further utilize the strengths and capabilities of existing housing organizations. Rather than spending the time and resources to create a single new housing organization, it is wiser for existing, nearby organizations to collaborate to bring diversified housing to South Lake Union. As suggested by the discussion in the Housing Responsibilities and Organizations section, the Seattle Housing Authority can be associated with ownership and management, the Office of Housing can be associated with policy and administering funds and developers can be associated with building the housing. These groups will be supported by community development financial institutions as well as neighborhood businesses that can implement housing related incentives. This consortium of organizations can be an effective tool in meeting the housing needs of the neighborhood.



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- 3 *City of Seattle website*. 14 April 2005 <http://www.ci.seattle.wa.us/dpd/stellent/groups/public/@dpd/@plan/@proj/@compplan/documents/dpd_informational/cos_004495.pdf>
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- 5 *Global Green Online*. 11 May 2005 <http://www.globalgreen.org/pdf/casestudy_NuevaVista.pdf>
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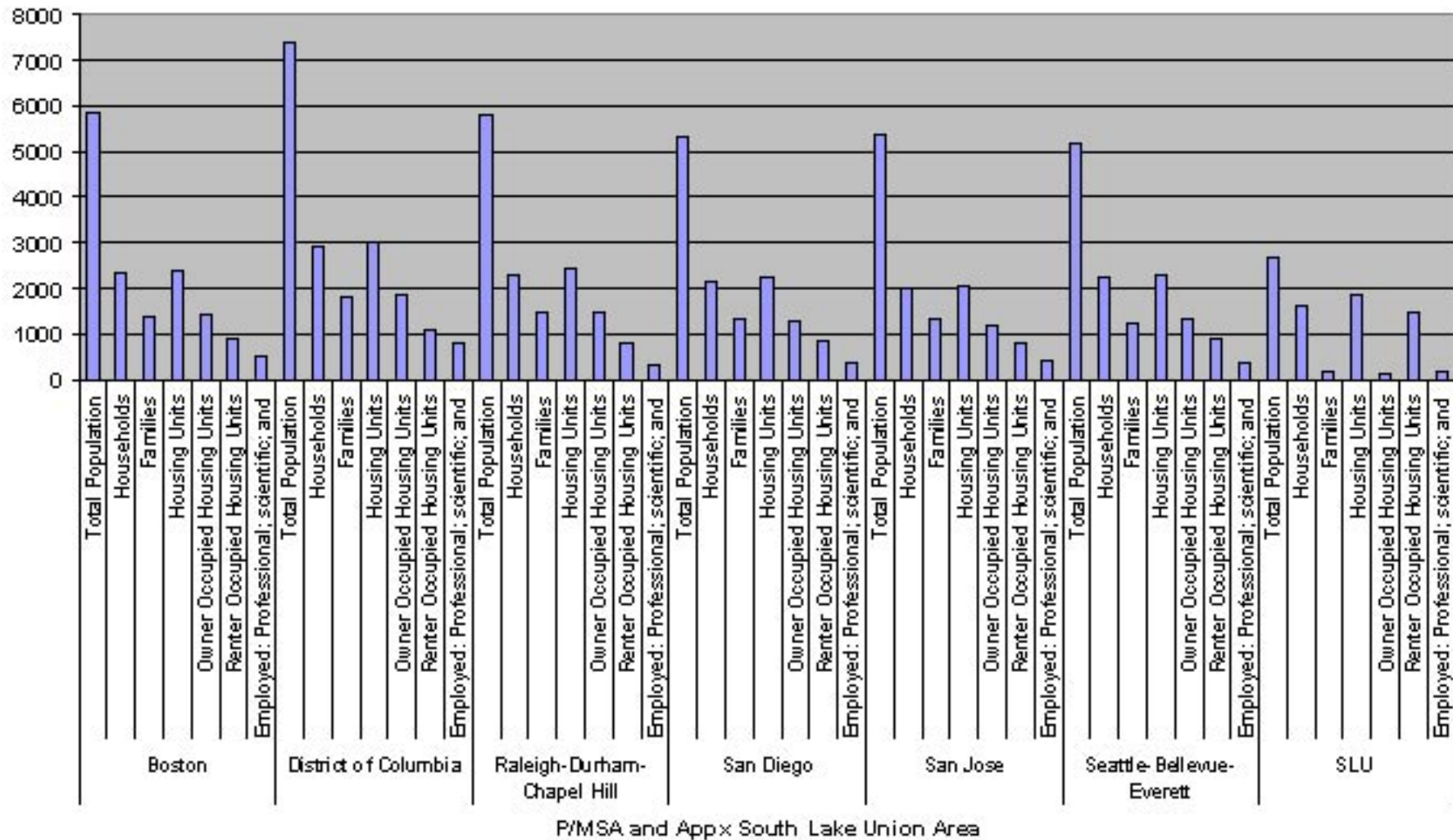
Appendix A

Housing Graphs and Tables



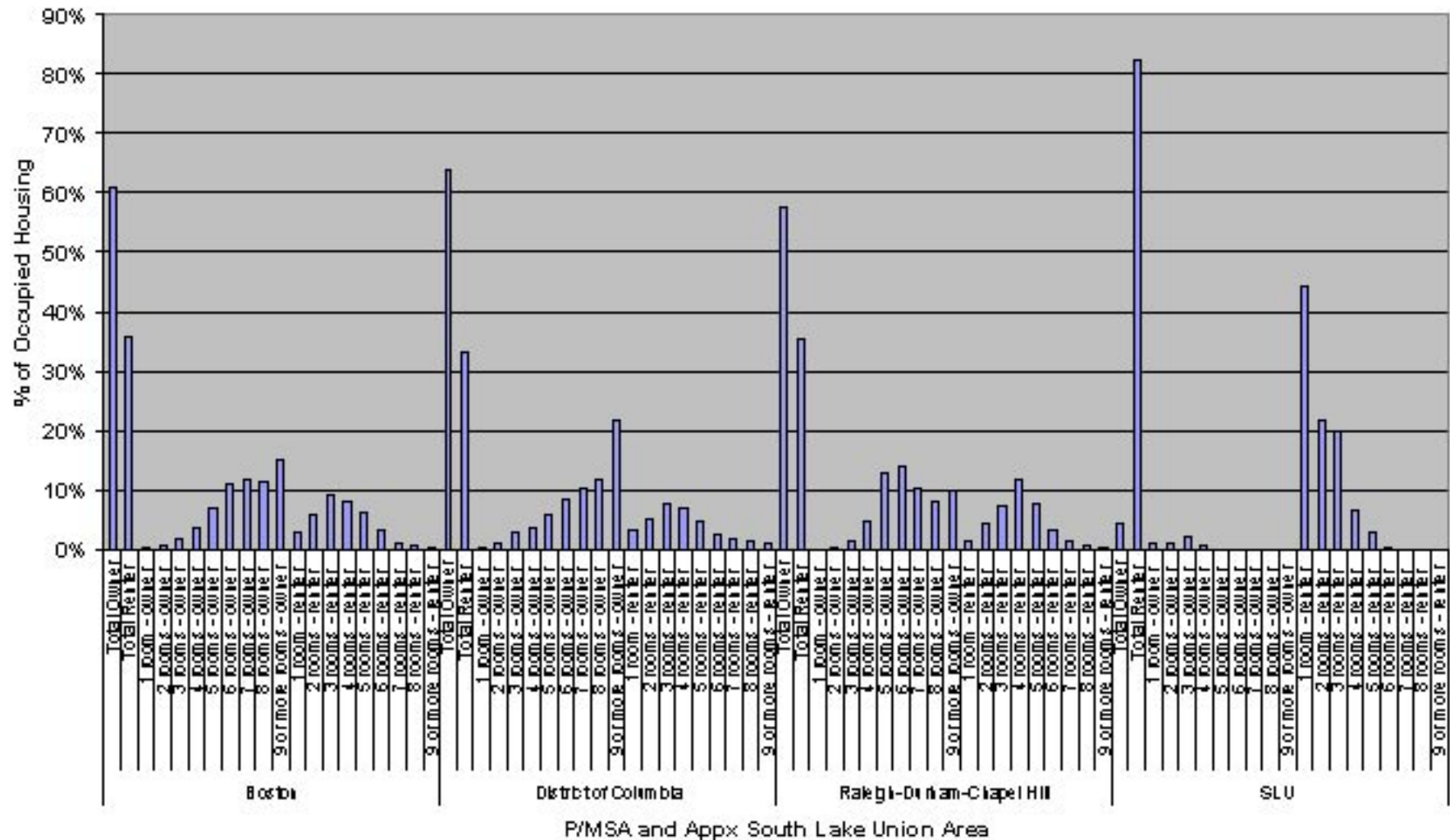
Housing – Graph #1

Housing & Population for Census Tracts Containing A High Population of Scientific, Professional & Technical Service Employees



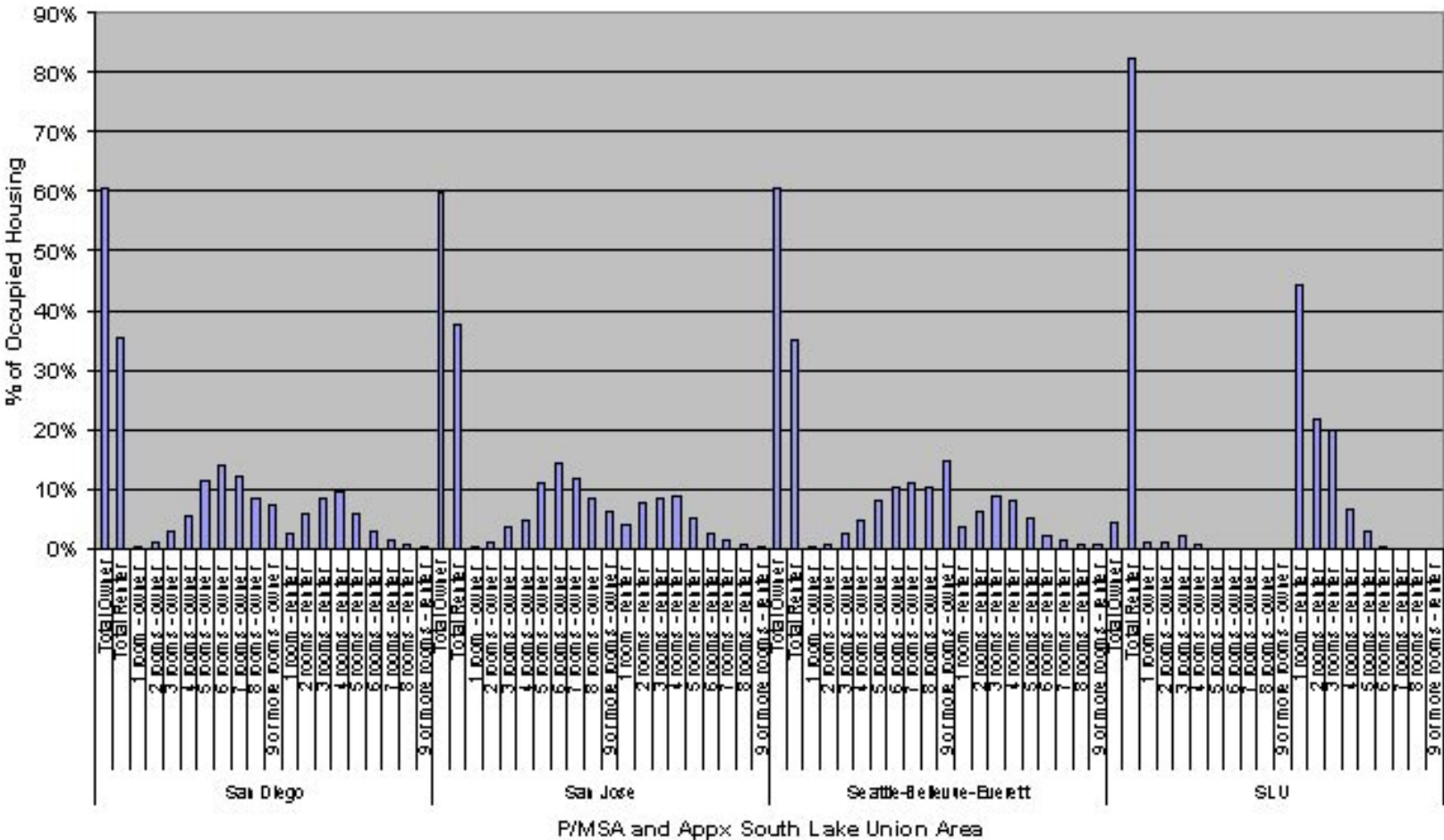
Housing – Graph #2

Rooms in Owner & Renter Occupied Housing for Census Tracts Containing A High Population of Scientific, Professional & Technical Service Employees



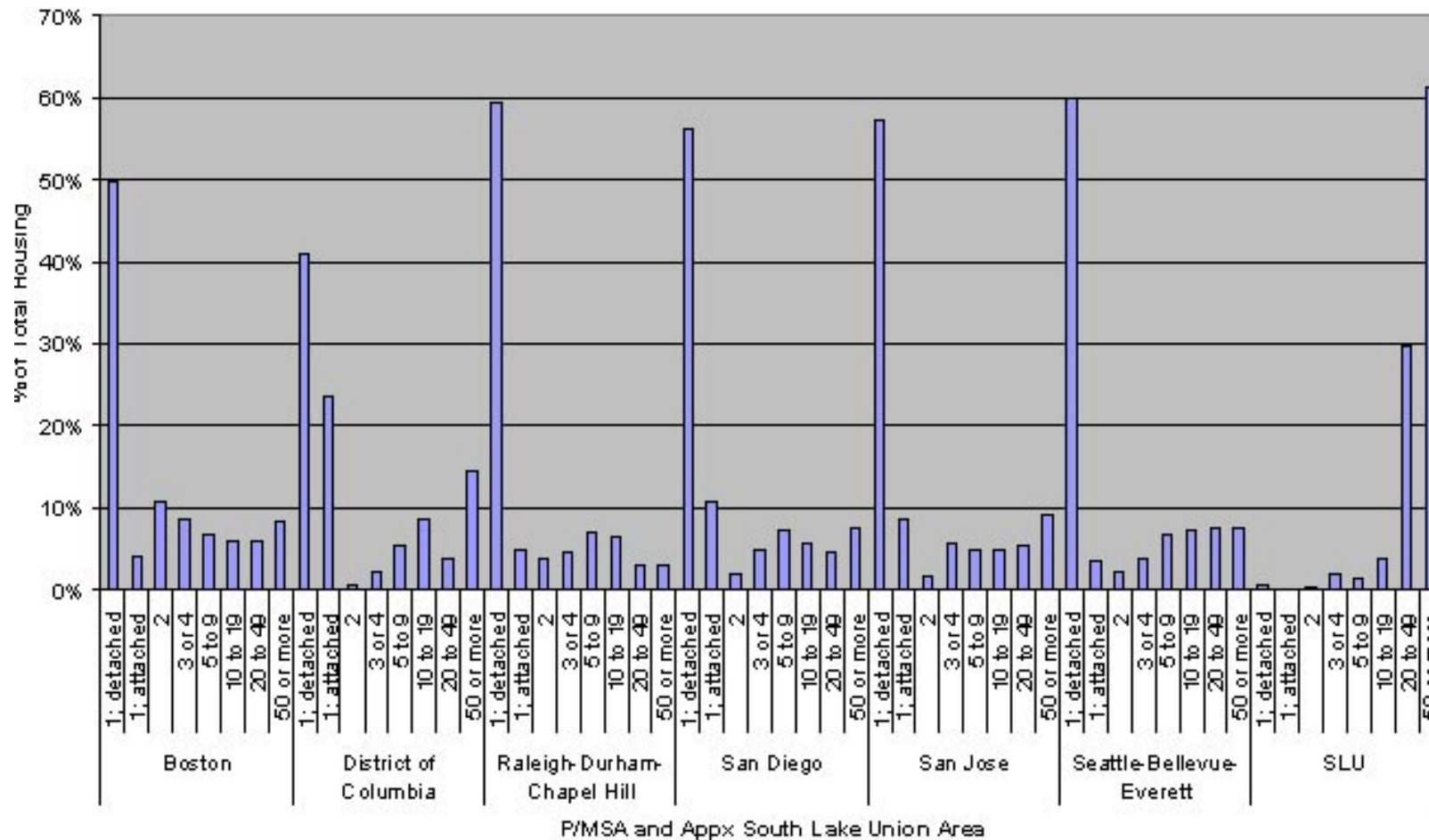
Housing – Graph #2 Cont'd

Rooms in Owner & Renter Occupied Housing for Census Tracts Containing A High Population of Scientific, Professional & Technical Service Employees



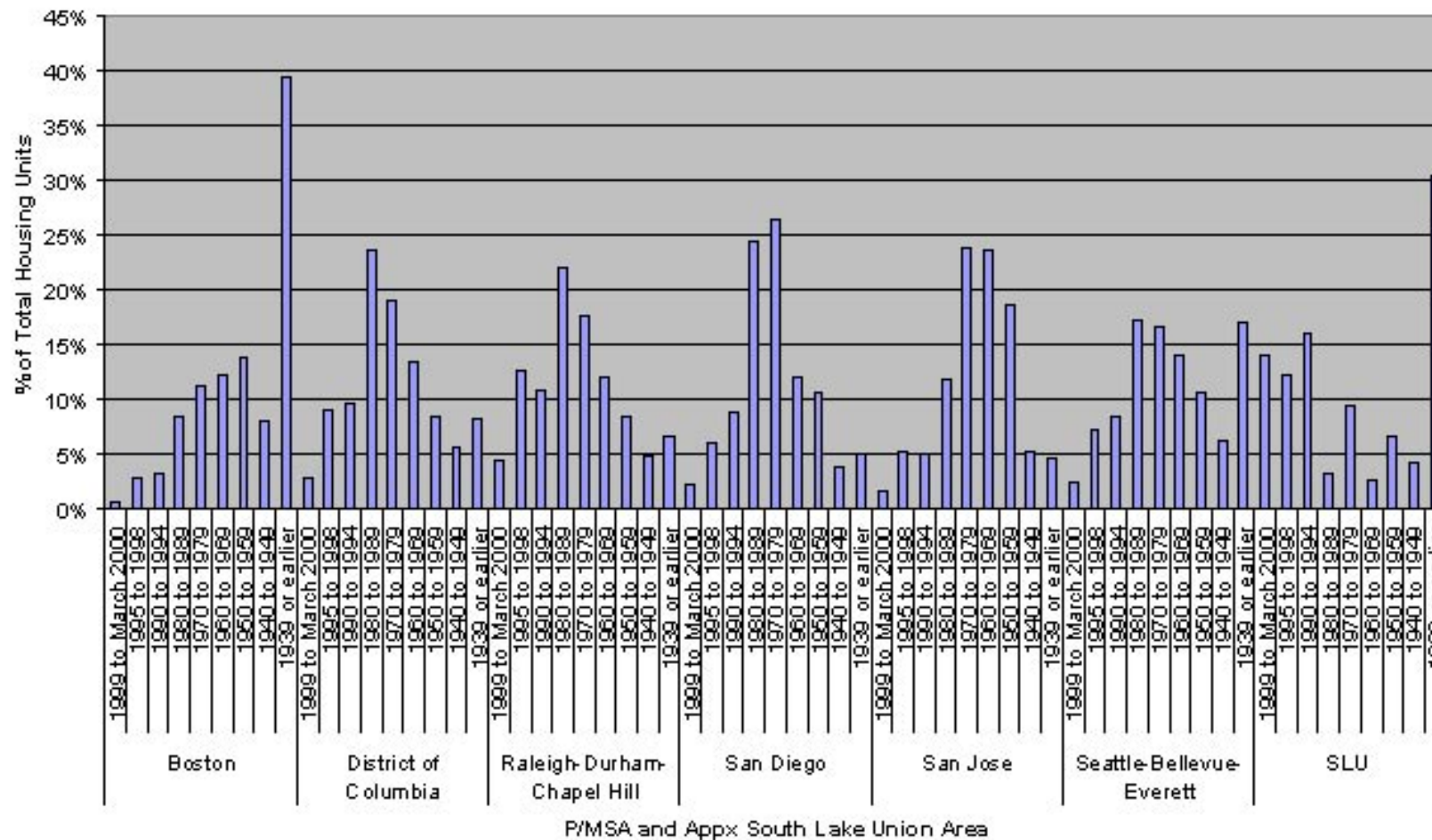
Housing – Graph #3

Housing Units in Structures for Census Tracts Containing A High Population of Scientific, Professional & Technical Service Employees



Housing – Graph #4

Year Built of Housing Units in Census Tracts Containing A High Population of Scientific, Professional & Technical Service Employees



Housing – Illustration

	Units/Acre			Estimated Housing Stock		Estimated HHs		
	Low Density (Units/Acre)	Probable Density (Units/Acre)	High Density (Units/Acre)	% 2024 Res Acres Type	Parcel Acreage	Units @ Low Density	Units @ Probable Density	Units @ High Density
Single-Family Detached	1	4	14	0.00%	0	0	0	0
Townhouses	8	12	25	5.00%	10.32	83	124	258
Low-Rise Multifamily	25	30	35	40.00%	82.56	2,064	2,477	2,890
Mid-Rise Multifamily	50	60	70	10.00%	20.64	1,032	1,238	1,445
High-Rise Multifamily	80	140	200	5.00%	10.32	826	1,445	2,064
				60.00%	206.4	4,004	5,284	6,656
HH est (given 5% vacancy)						3,813	5,032	6,339
Seattle Comp Plan Target HHs						9210	9210	9210
Surplus, (Deficit)						(5,397)	(4,178)	(2,871)
	Low Density (Units/Acre)	Probable Density (Units/Acre)	High Density (Units/Acre)	% 2024 Res Acres Type	Parcel Acreage	Units @ Low Density	Units @ Probable Density	Units @ High Density
Single-Family Detached	1	4	14	0.00%	0	0	0	0
Townhouses	8	12	25	0.00%	0	0	0	0
Low-Rise Multifamily	25	30	35	10.00%	20.64	516	619	722
Mid-Rise Multifamily	50	60	70	40.00%	82.56	4,128	4,954	5,779
High-Rise Multifamily	80	140	200	10.00%	20.64	1,651	2,890	4,128
				60.00%	206.4	6,295	8,462	10,630
HH est (given 5% vacancy)						5,995	8,059	10,123
Seattle Comp Plan Target HHs						9210	9210	9210
Surplus, (Deficit)						(3,215)	(1,151)	913
	Low Density (Units/Acre)	Probable Density (Units/Acre)	High Density (Units/Acre)	% 2024 Res Acres Type	Parcel Acreage	Units @ Low Density	Units @ Probable Density	Units @ High Density
Single-Family Detached	1	4	14	0.00%	0	0	0	0
Townhouses	8	12	25	0.00%	0	0	0	0
Low-Rise Multifamily	25	30	35	10.00%	20.64	516	619	722
Mid-Rise Multifamily	50	60	70	10.00%	20.64	1,032	1,238	1,445
High-Rise Multifamily	80	140	200	40.00%	82.56	6,605	11,558	16,512
				60.00%	206.4	8,153	13,416	18,679
HH est (given 5% vacancy)						7,765	12,777	17,790
Seattle Comp Plan Target HHs						9210	9210	9210
Surplus, (Deficit)						(1,445)	3,567	8,580



Housing – Case Example Matrix

Employee Incentives

City	Name of Program	Goal of Program	Implementation
Boston	Citizens Bank home buyer assistance program	Provide funds to employees to promote living near work and neighborhood stability	5-year forgivable loan used for expenses associated with a mortgage
Maryland Department of Housing and Community Development www.op.state.md.us/smart-growth/lnyw.htm and www.smartgrowth.org/pdf/gettosg.pdf	“Live Near Your Work” pilot program	To encourage employees of MD businesses and institutions to buy homes near their work place.	State contributes \$1,000, employer contributes \$1,000, local government contributes \$1,000 for funds to be used for a down payment or towards closing costs associated with a purchase
Boston	Employer Incentive Proposal (not official yet)	City Officials to reach out to major institutions to encourage employee incentives to live near their work	Speak to major institutions (hospitals, colleges, banks, research facilities, Biotech) and get them to offer assistance to their employees as an incentive to live close to where they work, and in return the employer could receive a tax credit for employer contributions – producing the long-term goal of healthier lifestyles and reduction of single-person transportation
See TOD – Philadelphia (last page)			

Increasing Affordability and Home Ownership

City	Name of Program	Goal Of Program	Implementation
Orcas Island, WA	Opal Community Land Trust	Increase housing affordability	Reddick Apartments, Orcas Island WA, low-rent, year-round lease apartments and adjoining office space. The mixed-use development consists of four buildings; two reflect historic buildings which once stood on the property. Rental apartments range in size from 400 to 700 sq. ft. and rent for \$390 to \$650 per month.
Chicago	ACORN Housing Corporation	Increasing housing affordability and homeownership	Chicago housing development >10 homes that are acquired through multiple financing programs, refurbished by future owners, maintained through an OA , and allow sale price to appreciate consummate with inflation



Seattle http://www.homesteadclt.org	Homestead Community Land Trust	Promote affordable home ownership for MI 50%-80% - To create affordable housing by taking the cost of land out of the purchase price of a home	HCLT owns land and buyer will own the house. HCLT absorbs the cost of the land and continues to hold it preserving affordability. When the house is sold, a portion of the appreciation goes to the owner. Local control; dual ownership; preservation of investment of public and private resources; flexibility – provides access, affordability, assistance, and security. CLTs buy or receive gifts of property (need to determine available property in SLU to accomplish this) To create affordable housing by taking the cost of land out of the purchase price of a home
San Luis Obispo http://www.ci.san-luis-obispo.ca.us/communitydevelopment/download/affordin.pdf	Affordable Housing Fund	Create a funding source for affordable housing.	Collection of in-lieu housing impact fees for the use of creating affordable housing.
Marlboro, MA http://www.innovations.harvard.edu/news/4669.html	Owner incentives for affordable rental housing.		Under the program, owners of multi-family homes will be paid at least \$8,000 for each apartment they reserve as affordable housing for 15 years. Tenants would pay no more than 30 percent of their income for rent.
Seattle http://www.homesightwa.org/	HomeSight (OED funds them)	To promote the revitalization of neighborhoods through affordable housing ownership strategies	First-time buyer education, financial assessment, home buyer purchase assistance loans (low-interest deferred or amortizing), new home development, first mortgage underwriting
Boston	Citizens Housing Bank Community Program	To create neighborhood stability and lower costs for non-profit developers to build affordable housing units	Provides non-profit developers with low-cost funding necessary to create a new supply of affordable housing units for rental or homeownership – to increase neighborhood stability
Seattle	CoHo Team of Windermere Real Estate Agents	To provide diverse housing and improvement of communities	Real Estate Agents donate 1/3 of their commissions to the Seattle Foundation, who then distribute the money to the CoHo approved non-profit organizations that either develop affordable housing or utilize the money to improve the overall community

Developer Incentives

City	Name of Program	Goal of Program	Implementation
Seattle	Downtown Density Bonus Program	To construct or contribute funds towards affordable housing projects on- or off-site by allowing a developer additional FAR	City permits increased density in return for a set-aside of affordable housing units



Seattle	Transfer of Developable Rights (TDRs)	To encourage certain kinds of development	The owner of a public asset can calculate current FAR and allowed FAR and “sell” or transfer the difference (also known as development rights or air rights) as commercial square footage. Typically, this transfer runs with the land and the rights cannot be exercised again.
Seattle http://www.cityofseattle.net/humanservices/director/ConsolidatedPlan/housepubpolicies.htm	Property Tax Exemption Program	Developers exempt from tax if they provide a certain number of units for low and/or moderate income tenants	Housing developers in 9 “Community Revitalization” Seattle Neighborhoods can receive a 10-year exemption from property taxes simply by putting aside a certain number of units in their buildings for low and/or moderate income tenants.
Los Angeles	Affordable Housing Incentive Program	Specific building standards and land use regulations available to encourage housing production particularly that of low-income populations.	Projects of 5 or more units are entitled to a 25% increase over the number of units otherwise permitted by the underlying zoning in exchange for including affordable units within the project. Projects that include affordable units are also eligible for reduced parking requirements. For projects in close proximity to transit stops a density increase of 35% is available.
Seattle (King County)	Credit Enhancement Program	Relatively new initiative to assist in the development of affordable housing	King County will provide a credit enhancement which will reduce financing costs for housing developments -- either market rate or affordable developments. In exchange for project savings, the developer agrees to set aside affordable units within the project.
San Luis Obispo http://www.ci.san-luis-obispo.ca.us/communitydevelopment/download/affordin.pdf	Affordable Housing Incentives	Developer incentives to provide affordable housing	Provide density bonuses on existing structures when they are converted from apt to condo, on the condition that a corresponding number of units are offered to low income individuals and families. Good for addressing affordable ownership.
San Luis Obispo http://www.ci.san-luis-obispo.ca.us/communitydevelopment/download/affordin.pdf	Affordable Housing Incentives	Developer incentives to provide affordable housing	Miscellaneous incentives developer include: <ul style="list-style-type: none"> - Waive app and processing fees - Waive utility connection or meter installation fees - City funded improvements such as streets, sidewalks or utility lines - Relaxed parking requirements (also LA) - Direct subsidy of construction costs or construction financing costs - Approval of exceptions to subdivision or zoning property development standards



King County WA	Land Assembly	Absorb cost of land acquisition for developers in exchange for providing affordable housing.	This involves a public agency buying one or more parcels to create a larger, more developable parcel under single ownership, and then reselling or creating a long term ground lease with a private developer. Land write-downs involve the added step of the agency absorbing some of the cost of buying the land, so that when the land is resold to the private developer, the price is lower than the market rate or the payments are deferred to minimize the cost to the private developer. Land write-downs can be a powerful incentive to developers who otherwise will not take the risk of developing because of the large up-front cost of purchasing land, which can be as much as 25-40% of total project costs. This can be especially applicable to SLU with such organizations as Vulcan who already own many parcels of land in the neighborhood.
San Francisco	Housing Strategies Policy	Reducing the direct costs of development	<ul style="list-style-type: none"> -Rezoning land use to increase supply of land available for housing -relaxing Floor-to-Area (FAR) restrictions -increasing height and density allowances -providing direct subsidies to affordable housing developers -altering parking requirements -maintaining consistency for development fees -changing building codes to allow for new, cheaper materials
		Miscellaneous incentives from various places.	<ul style="list-style-type: none"> - Expediting permit processing - Setback requirements reduced - Financial incentives for land donations to non-profit organizations - Identifying qualified buyers and renters - Rehabilitation low interest rate loans - Reduction in property taxes

Family Housing

City	Name of Program	Goals of Program	Implementation
Vancouver, BC http://vancouver.ca/commsvcs/guidelines/H004.pdf	High-density housing for families with children	To provide reasonable and effective access to essential community services and recreational amenities	Discussions need to be held with the city, schools, parks to determine capacity/existence of community amenities



Madison, WI	Single Family Rent-to-Own Program (A partnership of Urban League of Greater Madison, US Bank, and Wisconsin Affordable Housing).	To help larger, low-income families obtain homeownership based on self-sufficient economy.	Families can have the affordable rent to purchase the home at the end of the rental period. The rental rates in this program are less than the market rates, In addition, benefits of residents are not only value appreciation, but also lower rates, no down payment, and a newly remodeled home.
Vancouver www.concordpacific.com	Concord Pacific Place	To provide amenities to attract families	The development has a school, a community center, several parks, 2 marinas, is adjacent to Yale Town and is flanked by the sea wall trail which continues around the perimeter of downtown Vancouver along the water. An interesting note - many of the condos have been sold as investment properties and have been rented out to ethnically diverse families who otherwise wouldn't have been able to afford the neighborhood.

Senior Housing

City	Name of Program	Goals of Program	Implementation
San Francisco http://www.spur.org/topics.asp?Topic=Housing	Senior Housing Task Force	To fix the barriers in various codes to make it easier to provide senior housing	Modify the planning, building, health, and fire codes to prevent a shortage of senior housing
Vancouver	Abbeyfield Houses of Vancouver Society	To provide seniors who want to live independently an affordable, small-scale, and family-style home.	The program is a registered non-profit organization which is comprised of volunteers to take care of the management. In addition, residents come from all backgrounds, and regular activities are scheduled monthly.
Burnaby	Assisted Living Program	To provide personal care services and hospitality services in a private housing unit.	A new option for care in an apartment setting, and it fits in between home care and facility-based complex care.
Lynchburg, VA	Traditional Neighborhood Development (TND)	To encourage self-contained neighborhoods	Provide mixed housing types and diverse populations who do not want to be isolated or inactive. Creating a livable type of neighborhood for senior citizens: diverse, walkable, sociable, independent, and safe.



Homelessness

City	Name of Program	Goal of Program	Implementation
San Francisco http://www.spur.org/topics.asp?Topic=Housing	Homelessness Task Force	To resolve the homelessness problem in the city by providing housing and treatment for everyone who needs it – solving the problem	“care not cash” measure; increasing availability of residential housing rooms; increasing supply of supportive housing; establishing realistic rules of conduct in urban public spaces; facilitating better interdepartmental coordination of homeless services
Seattle	Santos Place for Transitional Housing	To provide transitional housing for homeless individuals. Residents in Santos Place may live for up to two years.	There are total 42 studio units, and residents must be homeless by HUD definition and must meet low-income qualifying program. Income must be at 30 percent or below area median-income.
San Diego	Del Mar Apartments	To provide a permanent and multifamily rental housing for homeless people and those who are severely mentally ill.	The community service in this project included educational programs, such as oil painting classes, computer instruction classes, some field trips, and monthly guest speakers; in addition, these educational activities are expected to help residents develop more job skills.

Multi-Modal Development

City	Name of Program	Goals of Program	Implementation
Portland http://49web.uncc.edu/~afcollin/andrewcollins.htm	Orenco Station case study	To reduce auto dependency and to create compact residential development and to foster mixed land uses	206 acres of developable land – 60 % residential (equal mix of single-family and multiple-family units), yet not very affordable.
Mountain View, CA http://www.abag.ca.gov/planning/lut/lutd.html	“The Crossings” which implements the San Antonio Station Precise Plan, Mountain Plan	To direct commercial and residential development around the station and encourage redevelopment of older, obsolete commercial uses	“The Crossings” – development project: mixed-use project, residential parking located to the rear or under housing and houses include front porches. Streets only 28-feet wide. Variety of housing: townhomes, apartments, and single-detached. 15 % of the units are affordable. 3 parks and 1 daycare center are nearby.



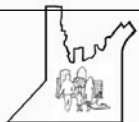
Philadelphia http://www.dvrpc.org/planning/community/tod/newsletter/TransitNews7.htm	TOD: The Commuter Choice Leadership Initiative	Launched by the EPA and DOT, a new voluntary business-government partnership to encourage TOD development	To reverse detrimental environmental trends - Commuter Choice encourages employers to provide top-of-the-line commuter benefits (transit subsidies, incentives for living closer to work, and establishing work sites closer to employees' homes. Participating employers earn designation of Commuter Choice Employer and receive commendations for the EPA Administrator and the Secretary of Transportation, as well as free publicity = leaders in improving their community's quality of life.
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Preservation

City	Name of Program	Goal of Program	Implementation
Seattle	DNDA – Three Projects / One Community	To renovate and revitalize the Old Cooper School in the Delridge Neighborhood	Create a capital campaign to provide affordable artists' lofts, education community opportunities, thus encouraging more stability in the neighborhood and benefits for all. Federal funding, state funding, private donors, fund-raising parties, loans, and grants
Pittsburgh, PA	History and Landmarks Foundation	To provide short-term loans and technical assistance to community-based non-profit developers	Managing a revolving loan fund that enables the purchase and restoration of historic properties, through non-profit developers, that are then sold to low-and-moderate-income levels.
Berkeley, CA http://www.ciwmb.ca.gov/GreenBuilding/CaseStudies/Homes/Adeline.htm	Adeline Street Urban Salvage Project	Mixed-Use Infill Redevelopment	Maintains and enhances original house by using salvaged material and restructuring of space – ecological design, commitment to recycling and reuse, high standards of energy-efficient design, sustainable materials, “internal” recycling

Sustainability

City	Name of Program	Goal of Program	Implementation
Santa Cruz, CA http://www.globalgreen.org/pdf/casestudy_NuevaVista.pdf	Nueva Vista	Affordable housing incorporating green features with a limited project budget	Project offers very low- and low-income residents who work with tourism and agriculture sectors affordable housing. Green feature concepts get political support from the Council – includes energy saving, reduced parking, low impact heaters, resource conservation, and renewable energy.
Portland, OR http://www.sustainableportland.org/	Douglas Meadows	Affordable housing project exceeds green goals	One of the city's first efforts to fully incorporate green building techniques into a small affordable housing project – emphasis on creating a family and community environment: optimizes site characteristics, energy efficiency, public transportation, passive solar design, alternative materials



Cambridge, MA http://www.eere.energy.gov/buildings/highperformance/case_studies/overview.cfm?ProjectID=82	Cambridge Cohousing	Infill residential project – 41 units, communal facilities, childcare, recreational facilities, library, shared gardens	Focused on site, transportation, energy, material use, indoor air quality, economics, human health, open space preservation, natural ventilation, efficient appliances, and durability for design of site.
Oakland, CA http://www.greenresourcecenter.org/CaseStudies/RCD_Northgate_Apts.pdf	Northgate Apartments	“smart growth” infill with Green Building techniques – family size affordable housing with close proximity to BART station, shopping, schools, health facilities	Central courtyard that buffers site visually and acoustically from freeway, ground and roof landscaping, no vinyl, durable materials, sustainable resources, good indoor quality, car share space, electric car charge station, EnergyStar appliances, and linoleum flooring.



A d a p t i v e R e u s e



Executive Summary

Historic preservation and adaptive reuse was identified as one of eight key study areas for Spring quarter, 2005. A major hub in Seattle's early development, South Lake Union has strong maritime and industrial heritage. The desire to honor the past through preservation and maintenance of historic character is consistent throughout the community.¹

Although numerous buildings in South Lake Union meet certain criteria for historic preservation, this report does not recommend historical landmark designation for any buildings at this time. To achieve landmark status, buildings must satisfy a suite of historic and architectural considerations. Alternatively, this report explores the area of adaptive reuse. This development tool offers a way to preserve historical character without requiring formal landmark designation from the city.

Adaptive reuse is the process of converting obsolete buildings into new uses, while maintaining elements of the original design and structure². This technique preserves the character of time and place, while accommodating changes in demand, technology, tastes, and uses. Based on recent zoning amendments in South Lake Union, the area is well-positioned to facilitate adaptive reuse. The city removed variance processing barriers and amended its building code to include a section specific to the rehabilitation of existing buildings. To encourage adaptive reuse, this report includes a checklist to be completed by owners and developers entering the design review process. The goal is to help developers and the Design Review Board think critically about the opportunities presented by adaptive reuse.

Introduction and Purpose

The adaptive reuse of buildings and corridors in South Lake Union is an important component in the revitalization of this working neighborhood. Current plans for a streetcar, biotech facilities, and South Lake Union Park will help promote a thriving, mixed-use center. These amenities should be complimented with a built environment that is functional, attractive, and practical. Currently, numerous buildings stand as relics of a bygone industrial era. Adaptive reuse offers the dual strategy of preserving historical character while evolving with the changing needs of business and industry.

This report provides city staff, developers, and citizens practical and educational methodology and policy recommendations to support the adaptive reuse of older buildings. Research for this report investigated current policies used by Seattle and other cities that facilitate adaptive reuse. The ultimate purpose of this effort is to assess the current state of the adaptive reuse environment in South Lake Union and to provide tools and information that encourage reuse.

Methodology

Adaptive Reuse Checklist

Existing textbooks on adaptive reuse, City of Seattle, King County, Washington State, and federal websites on preservation, and successful adaptive reuse cases from across the country were researched to prepare the checklist. In developing a practical and rational checklist, potential users were considered and the development process for adaptive reuse projects in the City of Seattle was reviewed.

Policy Review

To understand how property in South Lake Union is currently suited to facilitate adaptive reuse development, the current policy structure in the City of Seattle and the policies other cities use to encourage adaptive reuse were researched. Common hurdles to adaptive reuse, including obtaining land use variances, meeting building codes, and navigating the design review process were studied.

Decision-Making Process

The adaptive reuse process is described in an annotated flow chart, and discussed in the following section. The purpose of the flow chart is to highlight key decisions involved in adaptive reuse. Due to the dynamic nature of this type of development, the flow chart incorporates a literature review of adaptive reuse, as well as a successful, local case study. The chart located in Appendix C provides a visual representation of this case study. Numerical annotations offer detailed accounts of crucial decisions and their significance in the field of adaptive reuse. In the following discussion, principles and strategies of adaptive reuse are described. By reviewing texts which identify and describe the reuse process, this section identifies consistent themes in the reuse process.



Results/Discussion

A research summary is provided below. The Adaptive Reuse Checklist is included in the report as Appendix A.

Common Obstacles to Adaptive Reuse

Land Use Variances

The Cities of Los Angeles and Nashville have adopted adaptive reuse ordinances that promote the reuse of existing commercial and industrial buildings for residential purposes. These ordinances allow the reuse of buildings without requiring the developer to seek a land use variance. Obtaining a variance in South Lake Union is a non-issue because of the recently adopted Seattle Mixed zoning which permits a range of uses from residential to light industrial. Other incentives offered through an adaptive reuse ordinance include waived density and parking requirements, additional residential floor space as mezzanines, and flexibility in meeting code upgrades. However, the Seattle Mixed zone provides these incentives as well. Therefore, an adaptive reuse ordinance would not benefit South Lake Union.

Building Codes

Building codes are typically used by local governments to regulate the design and construction of buildings to secure public health and safety. During the past century, numerous building codes and regulations were developed to ensure the construction of safer and more reliable buildings. Building codes were generally written for new construction with little emphasis on rehabilitation work. Early building codes were intended to make old buildings unfixable, because they were assumed to be inherently unsafe for inhabitants³. As the existing building stock has improved in quality, it has become advantageous to rehabilitate and reuse old structures.

Massachusetts, New Jersey and Maryland were the first states to recognize the need for a rehabilitation code, also known as existing building codes. Existing building codes also exist, or are being developed in Minnesota, New York, Rhode Island, Kansas City, Missouri, Wichita, Kansas, and Wilmington, Delaware. The U.S. Department of Housing and Urban Development (HUD) has also developed model existing building codes and guidelines, based on New Jersey's code, for use by other states and interested parties. It is important to note that jurisdiction (state versus local) building codes vary from state to state. Additionally, many jurisdictions use uniform codes developed by model code organizations. These

organizations are also beginning to develop model rehabilitation codes.

The City of Seattle has been proactive in addressing the unique construction of existing buildings. By adopting the Seattle Building Code to include Section 3403.12 that addresses buildings in Seattle that undergo substantial alterations, the city has effectively addressed challenges that would be encountered by a developer in a city without such a code. A copy of Client Assisted Memo 314: Seattle Building Code Requirements for Existing Buildings that Undergo Substantial Alterations, produced in November 2004 is attached as Appendix D.

Business Improvement Districts/Façade Programs

An important aspect to adaptive reuse is the façade of the building. One common means to facilitate façade improvement has been the establishment of a Business Improvement District (BID) that may issue grants and technical assistance. Two such examples are the City of River Falls, Wisconsin and Oakland, California. In River Falls, the BID issues matching grants for exterior renovations by business and/or property owner located in the BID or by those who intend to locate in the BID. Examples of qualifying expenditures include but are not limited to exterior renovations (including store signage, awnings, windows, building fronts, entries, and planters) and other expenditures as defined by the borrower and approved by the Main Street Board of Directors. No mechanical, HVAC, roofs, or electric can be included. Grants may not be used for the refinance of existing loans, working capital, or for purchase of inventory or interior renovations. These first come, first serve grants are for \$.50 per \$1.00 up to a maximum grant of \$2,500 for signage and awnings and \$.35 per \$1.00 up to a maximum grant of \$12,000 for all other approved improvements.

The City of Oakland has a Commercial Property Façade Improvement Program. This program offers free architectural assistance and 50% matching grants up to \$20,000 (downtown) or \$10,000 (specified neighborhood commercial districts) to property and business owners for eligible projects. The program is intended to enhance the visual appearance of targeted commercial districts by stimulating the rehabilitation of commercial and mixed-use buildings. Grant funds can be used to rehabilitate historic façades, exterior repairs, windows, painting, cleaning, removal of old signs and installation of new signs, awnings, exterior lighting, improvement or removal of safety grilles and guards, fencing, and landscaping.

Noted in the Community Identity section of this report is a recommendation that a BID be established in South Lake Union. If this occurs, a façade improvement program should be established to help those who adaptively reuse buildings defray



costs often associated with their efforts.

Adaptive Reuse Principles

The adaptive reuse process is both a science and an art. General concepts guide each stage in the process, but few hard and fast rules specify when and how adaptive reuse projects occur. Adaptive reuse is development in reverse; the parcel and building are pre-determined, leaving use and rehabilitation as remaining variables. The Lake Union Steam Plant is a good case study to illustrate the concepts of adaptive reuse, because it presents a typical set of questions a developer faces when considering a project (For full description, see Appendix C).

Before considering an adaptive reuse project, a developer must ask the following questions: Would market opportunity warrant the construction of a new facility at the existing location? Can the existing facility be economically modified to accommodate market demand? Even though a building may lend itself well to a particular new use, it does not ensure that market demand will guarantee success of the project after completion. Developers must research social and economic trends to verify that projects satisfy a current need. The developer in the Steam Plant case, Koll Real Estate Group, first considered condominiums. Almost half the units sold before the project was started. Unfortunately, a sour turn of events in the financial markets required Koll to consider new uses. This time, the developer accurately forecasted the viability of light industry. Zymogenetics has since contributed to the prominence of South Lake Union as an emerging biotech hub, strategically located among high-caliber public and private research centers.

After a new use is warranted, a developer begins to consider opportunities provided by the site. Koll acquired the Steam Plant just after it received designation as an historic landmark. This status solidified the community's appreciation for the building, and offered new incentives for rehabilitation. If a building is not eligible for designation, communities such as South Lake Union may still wish to see the character of old buildings retained through reuse. In addition, a cluster of similarly designed buildings suggests opportunities for a 'district' approach to adaptive reuse, such as the Pearl District in Portland, Oregon.

The developer must now begin to consider the proximity to amenities based on proposed use. If considering residential dwellings, how close is the site to transit? Will parking be provided? How accessible are neighborhood services such as schools, parks, and shopping? If commercial or industrial space is an option, then the site must provide service access and waste disposal options, for example.

Once the developer is confident that market timing and site characteristics favor a particular use, they begin to look inside the building and plan for rehabilitation.

The success of an adaptive reuse project hinges on the outcome of the rehabilitation process. Many challenges (and opportunities) emerge when redesigning and rebuilding older structures. Although rehabilitation costs can exceed traditional demolition and rebuild, careful reuse of existing infrastructure and financing strategies can support cost-effective reuse. During this stage, creativity and feasibility merge between developers, architects, structural engineers, and interior designers. The team must devise a strategy for maintaining the functions and aesthetics of the old buildings while importing new features and complying with current building codes. Koll was able to provide a unique integration of laboratories and offices, each oriented toward large windows overlooking Lake Union. The atria and center staircase were preserved to facilitate movement and provide informal gathering places. In addition, extra office space and expansion floors were created when the former penthouse was redesigned to accommodate new smoke stacks. Interestingly, biotech turned out to be the better use for the Steam Plant, when the community asked Koll to preserve the original bay-style windows.

Building and design codes also present formidable challenges but can be integrated with old and new infrastructure. The following list is an example of many interior and exterior structural and design considerations involved in a hypothetical project.

Frame Type	Electrical	Plumbing	Façade Materials
Floor Plan	Fire Exits	Load Capacity	H a z a r d o u s Materials
Height	E l e v a t o r s / Stairwells	Solid Waste	Service Access
Floor-to-Floor- Heights	Floor Plan	H e a t i n g / Cooling	Water/Sewer

For further reuse criteria, see appendix D.2

Once rehabilitation plans are set, the process moves into regulatory and financing stages. Again, there are many options from public, private, and non-profit sectors. The status of the buildings and type of use will determine the opportunities for support. In our steam plant case, the landmark status offered numerous



opportunities. First, Koll secured a 10-year tax abatement for restoration of an historic landmark. They also declined a \$1 million price reduction, opting instead to allow the city to conduct environmental remediation. The windfall for Koll was huge--remediation cost around \$4 million. Finally, Koll received a land use variance to expand the penthouse beyond current height limits. The Landmark Board's requirement to rebuild the smokestacks created a legitimate rationale for the decision. These regulatory and financial tactics enabled Koll to complete the project on time and within budget.

Zymogenetics still occupies the Lake Union Steam plant and remains a leader in South Lake Union's biotech industry. But in these projects, the developer must be credited for his/her role in neighborhood revitalization. Much of Zymogenetics' success and popularity can be attributed to creative and bold steps taken by Koll Real Estate. The group seized opportunities created by the building's landmark status. They proposed two viable alternatives for new uses, and involved the public throughout the process. Using pre-existing design features and building materials, Koll and associated parties were able to create a unique and functional space for light industry and finish ahead of schedule. Finally, the group took advantage of numerous regulatory and financial incentives to achieve success. The result has breathed new life into a significant building from the city's past, and a neighborhood that is hopeful about the future.

Analysis/Recommendations

The adaptive reuse of buildings in South Lake Union serves a number of purposes, all of which will enhance the character and rich history that this area of Seattle has to offer. Cities across the country are encouraging the reuse of buildings in order to maintain their urban fabrics while continuing to grow and accommodate economic growth. Our analysis of adaptive reuse efforts and policies in both Seattle and across the country indicates that the City of Seattle has positioned South Lake Union to grow and thrive in the decades to come.

Land Use Variances

A common hurdle for adaptive reuse projects is complex zoning variance regulations experienced by owners/developers when they attempt to change the use of a non-residential building into all or partial residential use or vice versa. This effort often adds time and costs to the development process and acts as a deterrent to adaptive reuse development. Innovative cities such as Los Angeles and Nashville have adopted Adaptive Reuse Ordinances which permit non-

conforming uses in special districts.

The City of Seattle addressed the variance issue by adopting the Seattle Mixed zone into its zoning code. A majority of South Lake Union is zoned Seattle Mixed and the remaining Industrial Commercial zone in the area is likely to be changed to Seattle Mixed in the future. Because the Seattle Mixed zone permits a broad range of uses from strictly residential (with the exception of ground level space along Pedestrian 1 designated streets) to commercial, from mixed use to light industrial, owners and developers need not concern themselves with seeking a variance.

Building Codes

It has been shown that updating a city's building code to permit deviations from new building codes while maintaining the safety of the building encourages adaptive reuse of buildings and acknowledges the value of existing buildings. To address the code challenges existing buildings present to adaptive reuse projects, the City of Seattle amended Section 3403.12 of the Seattle Building Code (SBC) to incorporate Chapter 34 of the International Building Code, titled Existing Structures. SBC Section 3403.12 does not require a substantially altered building to comply with all of the current code; it requires compliance only with specific sections.

Based on discussions with developers and building inspectors, the existing building code amended by the City of Seattle appears to be effective. As indicated in the previous section, states such as New Jersey have more prescriptive and elaborate existing building codes than the City of Seattle's. If at any point in the future the current Seattle existing building code no longer functions efficiently, the New Jersey model should be considered.

Façade Improvement Program

The adoption of a Business Improvement District (BID) for South Lake Union is recommended in the Community Identity section of this report. There are many benefits to establishing a BID, such as improved streetscaping and marketing for BID member businesses. In regards to adaptive reuse, a BID may use funds to offer grant programs such as annual competitive façade grants or free architectural assistance. A façade improvement program would assist in defraying costs associated with adaptive reuse projects. Upon the establishment of a BID, a façade improvement program should be included. An important aspect to this grant would be that it encourages adaptive reuse projects. Therefore, the grant money should be available to projects in the process of adaptively reusing a building.



Design Review Board

The operative next step should include amending the South Lake Union Design Guidelines to include the adoption of the adaptive reuse checklist. Current architectural design guidelines for South Lake Union stress compatibility with existing structures. Supplemental guidance C-1, Architectural Context, suggests the re-use and preservation of important buildings and landmarks when possible. This is the only area in the South Lake Union Design Guidelines where the re-use of buildings is noted. A stronger commitment to adaptively reusing the existing built character for South Lake Union can be achieved with an amendment to the design guidelines combined with required use of the adaptive reuse checklist during preliminary design review.

Incentives to promote adaptive reuse would be primarily based on flexibility in zoning requirements to allow ease in design review. The checklist would act as an evaluative tool to focus information for further discussion. The potential developer would be expected to present a completed adaptive reuse checklist at the preliminary design review. With the checklist, design review discussions could include assessing opportunities for adaptive reuse of existing structures on the proposed site. The incentive offered through greater ease in design review is both desirable to the developers and enables the City to offer an incentive without a financial obligation. The current Architectural Context Guideline and the proposed Design Guideline amendment are in Appendix B.

Endnotes

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2. Gause, Jo Allen. New Uses for Obsolete Buildings. Urban Land Institute. Washington, DC: 1996.
3. Syal, Matt, Shay, Chris, and Supanich-Golder, Faron, Streamlining Building Rehabilitation Codes to Encourage Revitalization, Housing Facts & Findings, Volume 3 Issue 2, 2001



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Appendix A

Draft Adaptive Reuse Checklist and Guidance





Adaptive Reuse Worksheet

Adaptive reuse of buildings gives value to the existing fabric, while meeting the needs of a growing community. Keeping pieces of the historical character inherent to South Lake Union neighborhood can contribute to a diversity of structures capable of housing a diversity of community needs. This worksheet is an evaluative tool to assist the Design Review Board and potential developers in recognizing and rewarding adaptive reuse approaches to redevelopment in South Lake Union.



South Lake Union - Background and Draft Options for Urban Center Plan



DRAFT

Adaptive Reuse Checklist

Site Name:

Site Address:

Current use:

Owner:

Year built:

(1) Historic Landmark	
Landmark Status:	Yes, No
<i>If the building in question is a designated Landmark then do not proceed with this worksheet. Landmark buildings are governed by a Historic Review Board and proposed rehabilitation or demolition must be reviewed by this board. These buildings are inherently strong candidates for adaptive reuse therefore this scorecard would be redundant.</i>	

(2) Current Zoning Conditions	
Zone:	Seattle Mixed (SM) or Industrial Commercial (IC)
<i>SM zone allows for a variety of uses from residential to light industrial. Limited use restrictions are dictated by the street designation to be identified below. IC zone calls for uses with industrial or commercial in nature. Conditional uses within in the IC zone include artist's studio/dwellings and lodging.</i>	

Height Limit:	40-feet, 65-feet, 55/75-feet, 85-feet, or 125-feet
<i>Many existing buildings do not meet the allowable maximum height in South Lake Union. If the proposed use calls for high ceilings on the first two floors the allowable height in the 65-foot and 75-foot zones may increase to 85-foot and the buildings in the 85-foot zone may be increased to 105-feet.</i>	

Floor Area Ratio (FAR) Limit:	None, 4.5 (85' zones), 5 (125' zones)
<i>No FAR limit except for areas zoned 85-foot or 125-foot. In 85-foot zones a FAR of 4.5 is the maximum gross floor area permitted for all nonresidential uses. In 125-foot zones a FAR of 5 is the maximum gross floor area permitted for all nonresidential uses in structures greater than 75 feet in height. If a residential building, FAR does not apply.</i>	

Street Designation:	P1, P2, None
<i>Ground Floor Uses: If P1 Street, required street-level uses are on a minimum of 75% of building street frontage shall be: personal and household retail sales and service uses; eating and drinking establishments; customer service offices; entertainment uses; pet grooming services; public library; and public parks. P2 streets and non-designated streets may have residential uses on the first floor.</i>	
<i>Facade Transparency: P1 and P2 facades must have a minimum of 60% transparency and all other streets 30%</i>	

Upper-level Setback Required:	Yes, No
<i>1. Structures along upper-level setback streets must provide an upper-level setback for the facade facing applicable streets or parks for any portion of the structure greater than 45 feet in height.</i> <i>2. Structures on lots abutting an alley in the SM/R designated area shall provide an upper-level setback for the facade facing an alley for any portion of the structure greater than 25 feet in height.</i> <i>3. Structures on lots in the SM/125 zone must provide an upper level setback for the facade facing applicable streets or parks for any portion of the structure greater than 75 feet in height.</i>	

Parking Requirements:	Yes, No
<i>Parking requirements are dependent on the use of the property. Based on the current parking requirements in South Lake Union, will the adaptive reuse of the property require additional parking spaces?</i>	

(3) Summarize Zoning [to be completed by City Staff]



Adaptive Reuse Checklist

Site Name:

Site Address:

Current use:

Owner:

Year built:

(4) Key Elements				
	Insufficient 0	Sufficient 1	Excellent 2	Comment
Physical Features				
Existing Façade				
0=significantly modified; 1=altered; 2=original/preserved <i>Assertion: The façade intertwines the building with the urban fabric of South Lake Union.</i>				
Exterior Building Material				
0=Cement Block masonry; 1=Hard plaster/cement covering; 2=Clay/Stone based masonry <i>Assertion: Exterior building materials that are not as prevalent in South Lake Union and older materials should be given higher priority.</i>				
Ceiling Height				
0=10-feet throughout building; 1=Greater than 10-feet on ground floor and less than 10-feet on upper levels; 2=Greater than 10-feet on more than 1 floor <i>Assertion: Higher ceilings provide a number of benefits from greater flexibility for biotech or high-tech uses to potential mezzanine area for added residential space to more attractive retail space demanding higher rents</i>				
Method of Construction				
0=Light wood frame; 1=heavy timber construction; 2=iron/steel <i>Assertion: The method of construction indicates the durability of the structure and load capacity for additional floors.</i>				
Marketing Potential				
Lot Position				
0=NA; 1=Inner lot; 2=Corner Lot <i>Assertion: Corner lots offer more visibility and provide more light for residences and/or businesses</i>				
Historical Use Marketability				
0=Built within the decade; 1=Built within 50 years; 2=Built more than 50 years ago <i>Assertion: The historical uses of the building create marketing synergy between South Lake Union's past and future. Remaining artifacts from past use (i.e. pictures, equipment) can be incorporated into the new use.</i>				
Location Related to Public Transportation				
0=Greater than 1/2 mile; 1=Within a 1/2 mile; 2=adjacent to a stop <i>Assertion: The conventional measure for walkability is 1/2 mile or less.</i>				
Addition Potential				
Adjoining property ownership				
0=Segmented ownership; 0=NA; 2=Same Ownership <i>Assertion: Similar ownership offers greater possibility of leveraging reuse of multiple buildings or lots making a project more attractive</i>				
Adjoining property condition				
0=Stable property that will not change; 1=Improved with possible meld; 2=Vacant or strong candidate to combine <i>Assertion: The potential to increase the scope and scale of an adaptive reuse project is greater when adjoining properties can also be rehabilitated.</i>				
Percent Lot improved				
0=less than 50% improved; 1=Majority of lot improved, height not maxed; 2=90%-100% lot coverage and maxed height <i>Assertion: A building that covers a significant portion of the lot offers greater adaptive reuse potential, while buildings that occupy a smaller area of the lot are easier to demolish</i>				
TOTAL POINTS: out of 20 Range: 0-10 Key elements do not suggest the structure is a strong candidate for adaptive reuse 11-15 Key elements suggest the structure should be considered for adaptive reuse 16-20 Key elements suggest the structure is a strong candidate for adaptive reuse				

(5) Site Photographs - Attach photographs of site and adjoining properties to checklist**(6) Site Summary [to be completed by City Staff]**

Guidance Document

An applicant completing this checklist likely has a firm knowledge of the property and its improvements. The following guidance explains who completes each section and provides rationale for criteria. It should be stressed that this checklist does not consider financial implications which often drive a developer/owner's decision. The King County Assessors department (<http://www.metrokc.gov/assessor/>) is an excellent source for property data that may be missing.

Header

This is to be filled out by the applicant. If the year built is not known, reference the King County eReal Property System on the Assessor home page.

(1) Historic Landmark

If the applicant is not aware of Landmark status, at the State or City level, reference these two websites to confirm the site's recognized historic status:

Seattle Landmarks:

<http://www.seattle.gov/neighborhoods/preservation/a.htm>

Washington and National Landmarks:

<http://www.oahp.wa.gov/pages/HistoricSites/Register.htm>

The recognition of a building as a designated Landmark indicates that the property is protected and governed by a Landmark Preservation Board. Proposed rehabilitation or demolition must be reviewed by the Landmark Preservation Board. These buildings are inherently strong candidates for adaptive reuse; therefore, this scorecard would be redundant.

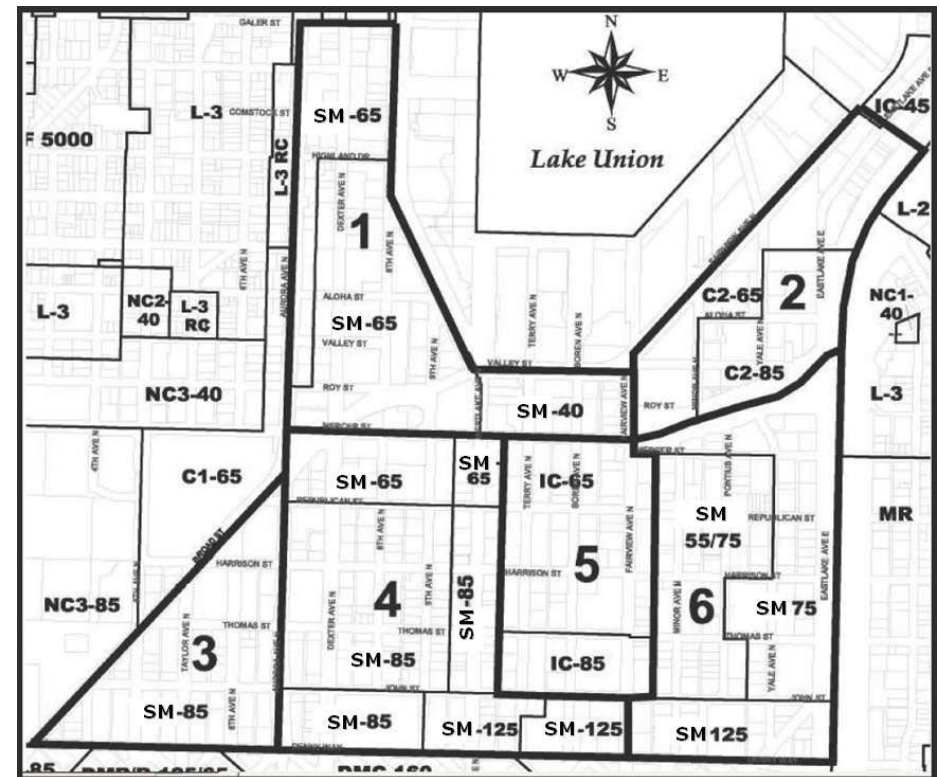
(2) Current Zoning Conditions

The current zoning of the site ultimately drives the configuration and use of the site; therefore, it is important to have intimate knowledge of the zoning environment. The following link references the Seattle Mixed Zoning amendments approved by Seattle City Council on April 18, 2005: http://www.seattle.gov/dpd/stellent/groups/public/@dpd/@plan/@proj/@slakeunion/documents/dpd_informational/cos_004439.pdf

Zone: With the recent zoning amendments to the South Lake Union area, there are two possible zoning classifications: Seattle Mixed and Industrial Commercial.

The Seattle Mixed zone allows for a variety of uses from residential to light industrial. Limited use restrictions are dictated by the street designation identified below. The Industrial Commercial zone calls for uses that are industrial or commercial in nature. Permitted and prohibited uses are defined in Seattle Municipal Code 23.50.012 (<http://clerk.ci.seattle.wa.us/~public/toc/t23.htm>). Conditional uses within in the Industrial Commercial zone include artist's studio/dwellings and lodging. To determine the zoning designation of a parcel, please reference the map below:

Map 1: Current Zoning Map of South Lake Union



Proposed Legislation, version 2

September 15, 2004

Map updated to reflect zoning changes



Height Limit: Height limits are depicted in Map 1. The maximum structure height either South Lake Union zone with a 65-foot or 75-foot height limit may be increased to 85-feet; and the maximum structure height in zones with an 85-foot height limit may be increased to 105-feet, when:

- A minimum of 2 floors in the structure have a floor to floor height of at least 14-feet; and
- The additional height is used to accommodate mechanical equipment; and
- The additional height permitted does not allow more than 6 floors in zones with a 65-foot height limit, or more than 7 floors in zones with a 75-foot or 85-foot height limit; and
- In the 55-foot/75-foot zone a new single purpose nonresidential structures shall have a height limit of 55-feet and single purpose residential structures and mixed-use structures with 60% or more of the structure's gross floor area in residential use are permitted to a height of 75-feet.

Floor Area Ratio (FAR) Limit: Seattle Mixed Zone: No FAR limit except for areas zoned 85-foot or 125-foot. In 85-foot zones a FAR of 4.5 is the maximum gross floor area permitted for all nonresidential uses. In 125-foot zones a FAR of five 5 is the maximum gross floor area permitted for all nonresidential uses in structures greater than 75 feet in height. FAR does not apply to residential buildings. For more specific guidelines FAR guidelines reference the Seattle Mixed zoning amendments referenced above.

Industrial Commercial Zone: Within South Lake Union, the FAR is 3.

Street Designation: Buildings along Pedestrian 1 (P1) designated streets are required to have the following street-level uses are on a minimum of 75% of building street frontage:

- 1. Personal and household retail sales and service uses;
- 2. Eating and drinking establishments;
- 3. Customer service offices;
- 4. Entertainment uses;
- 5. Pet grooming services;
- 6. Public library; and
- 7. Public park.

Pedestrian 2 (P2) designated streets are not required to have specific street level uses. South Lake Union has also created design guidelines for street level facades requiring transparency. Buildings fronting P1 and P2 streets must have facades

with a minimum of 60% transparency and all other streets 30%. The following map depicts P1 and P2 streets.

Map 2: P1 and P2 Designated Streets



*Proposed Legislation, version 2
September 15, 2004*

Upper-level Setbacks:

Structures along upper-level setback streets must provide an upper-level setback for the facade facing applicable streets or parks, for any portion of the structure greater than 45 feet in height.

Structures on lots abutting an alley in the SM/R designated area shall provide an upper-level setback for the facade facing an alley, for any portion of the structure greater than 25 feet in height. Structures on lots in the SM/125 zone must provide an upper level setback for the facade facing applicable streets



or parks, for any portion of the structure greater than 75 feet in height. The following map depicts streets that require upper-level setbacks.

Map 3: Upper-Level Setback Map



*Proposed Legislation, version 2
September 15, 2004*

Parking Requirements:

Parking requirements often create an obstacle to adaptive reuse projects. It is important for an owner/developer to know the parking requirements for the current use. In considering adaptive reuse project, the owner/developer should be aware of the parking implications for any proposed future use. If additional parking is required based on a proposed land use these details must be addressed early.

Section 23.54.015 of the Seattle Municipal Code prescribes required parking in Seattle. Chart A in this section (<http://clerk.ci.seattle.wa.us/~tables/2354015a.htm>) details the parking requirements for each use. The amended zoning code for South Lake Union revised the parking requirements for the parcels adjoining Class 1 Pedestrian and Class 2 Pedestrian Streets. The following table details these updated parking regulations:

Table 1: Parking Requirements along South Lake Union Pedestrian Streets

Uses	Class 1 Pedestrian Streets	Class 2 Pedestrian Streets
Retail sales and service uses, except eating and drinking establishments; customer service offices; and entertainment uses, except motion picture theaters.	No parking required for the first 25,000 square feet	No parking required for the first 7,500 square feet
Motion picture theaters	No parking required for the first 150 seats	No parking required for the first 150 seats
Eating and drinking establishments.	No parking required for the first 7,500 square feet	No parking required for the first 7,500 square feet
Human Service and child care uses.	No parking required	No parking required

*Proposed Legislation, version 2
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(3) Summarize Zoning

This section is to be filled out by a City representative reviewing the checklist. This acknowledges that the City has reviewed the site's current zoning conditions and is aware of the requirements.

(4) Key Elements

The purpose of the Key Element section of this checklist is to allow the owner/developer to critically consider important aspects of the lot and building characteristics that may not have been considered. For each element, the applicant should assign a value, 0, 1, or 2. Then values for the 10 key elements should be summed. The maximum score is 20. A project that scores between 16 and 20 is a strong candidate for adaptive reuse. A range of 11 to 15 indicates that the building should be considered for adaptive reuse and a range of 0-10 suggests the structure is not a strong candidate for adaptive reuse.



Physical Features: There are a number of physical features that help dictate whether a building is well suited for adaptive reuse. The following four elements play a significant role in both the character of the building from the street level, as well as the owner/developer's ability to reuse the building.

1. *Existing Façade:* The façade intertwines the building with the urban fabric of South Lake Union and provides residents and visitors with a sense of history in the area.
2. *Exterior Building Material:* Exterior building materials that are not as prevalent in South Lake Union and older materials should be considered higher priority. On one end of the spectrum there is cement block masonry which is a common and aesthetically plain material and on the other is clay (brick) or stone-based masonry which is a less common material that adds character to the area.
3. *Ceiling Height:* Certain modern uses of buildings, such as biotech laboratories, require a minimum of 14-foot ceilings. Higher ceilings provide a number of benefits, from greater flexibility for biotech or high-tech uses to potential mezzanine area for added residential space to more attractive retail space demanding higher rents.
4. *Method of Construction:* The method of construction indicates the durability of the structure and load capacity for additional floors. The type and spacing of load bearing structures greatly affect the ability to adaptively reuse and add to the building.

Marketing Potential: Adaptive reuse not only adds to the aesthetic character of South Lake Union but has economic impacts as well. Leveraging a building's aesthetic character with aspects of its marketability creates economic synergy.

1. *Lot Position:* The position of the lot in relation to the street network affects visibility and light. Corner lots offer more visibility and provide more light for residences and/or businesses.
2. *Location Related to Public Transportation:* The conventional measure for walkability is 1/2-mile or less. Buildings closer to public transportation (particularly the proposed fixed trolley) demand higher rents.

3. *Historical Use Marketability:* The historical uses of the building create marketing synergy between South Lake Union's past and future. Remaining artifacts from past use (i.e. pictures, equipment) can be incorporated into the new use.

Addition Potential: A vast majority of the existing buildings in South Lake Union have fewer stories than permitted by zoning regulations. The ability for an owner/developer to adaptively reuse a portion of an existing building while creating additional income-generating space with additional floors or expanding to unimproved portions of their lot serves two purposes: preserving the whole or portion of a viable building and maximizing the usable space of the lot.

1. *Adjoining property ownership:* There are many examples across the country and within Seattle where buildings have been both adaptively reused and expanded. Similar ownership of adjoining lots would offer a greater possibility of leveraging reuse of multiple buildings or lots making a project more attractive.
2. *Adjoining property condition:* The potential to increase the scope and scale of an adaptive reuse project is greater when adjoining properties can also be rehabilitated. Vacant lots permit the owner/developer more flexibility in creating additional building area. Adjoining properties that are recently developed or have existing uses at their highest and best use are not strong candidates to expand a reuse.
3. *Percent lot improved:* A well constructed building that covers a significant portion of the lot offers greater adaptive reuse potential. Partially improved lots are more likely to be viewed by a developer as a candidate for demolition.

(5) Recent Site and Adjoining Photographs

The applicant should attach recent photographs to the checklist so that the City representative may have visual perspective of the building and lot as well as the adjoining properties.

(6) Site Summary

This summary section is to be completed by City Staff. This section allows the City to reflect on the opportunities and obstacles to adaptive reuse the building and lot present.



Appendix B

Draft Design Guideline Amendment



Existing Design Guideline as proposed *

C-1 Architectural Context

New buildings proposed for areas within the neighborhood with a well-defined and desirable character should be compatible with or complement the architectural character and siting pattern of neighboring buildings.

SLU-specific supplemental guidance

- Support the existing fine-grained character of the neighborhood with a mix of building styles.
- *Re-use and preserve important buildings and landmarks when possible.*
- Signage - expose historic signs and vintage advertising on buildings where possible.
- Respond to the history and character in the adjacent vicinity . in terms of patterns, style, and scale. Where possible, reveal and reclaim history use community artifacts, forms and textures.
- Respond to the working class, maritime, commercial and industrial character of the Waterfront and Westlake areas. Examples of elements to consider include:
 - window detail patterns;
 - open bay doors;
 - sloped roofs.
- Respond to the unique, grass roots, sustainable character of the Cascade neighborhood. Examples of elements to consider include:
 - community artwork;
 - edible gardens;
 - water filtration systems that serve as pedestrian amenities;
 - gutters that support greenery.

* This guideline is found on page 23 of the South Lake Union Design Guidelines, Proposed 2004. This is the only instance in the South Lake Union Design Guidelines where the reuse of existing buildings is noted.

Proposed Design Guideline Amendment

C-6 Adaptive Reuse of Existing Buildings

Adaptive Reuse of buildings with architectural design or construction consistent with the historic character of South Lake Union shall be encouraged through flexibility in zoning requirements to allow ease in design review.

SLU-specific supplemental guidance

- Require checklist completion to assess potential for adaptive reuse before new construction is proposed
- Refer to completed historical reports for South Lake Union when discussing the checklist
- Allow departures from standard code restrictions, when possible and in the public interest to act as an incentive to aid the process of adaptive reuse
 - Encourage reuse when buildings possess valuable contribution to the neighborhood fabric
 - Consider each building's relationship to the context of historical elements and recognize patterns such as corridors



Appendix C

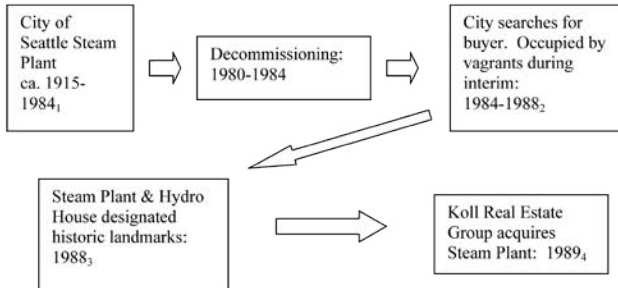
Decision-making Process Flow Chart



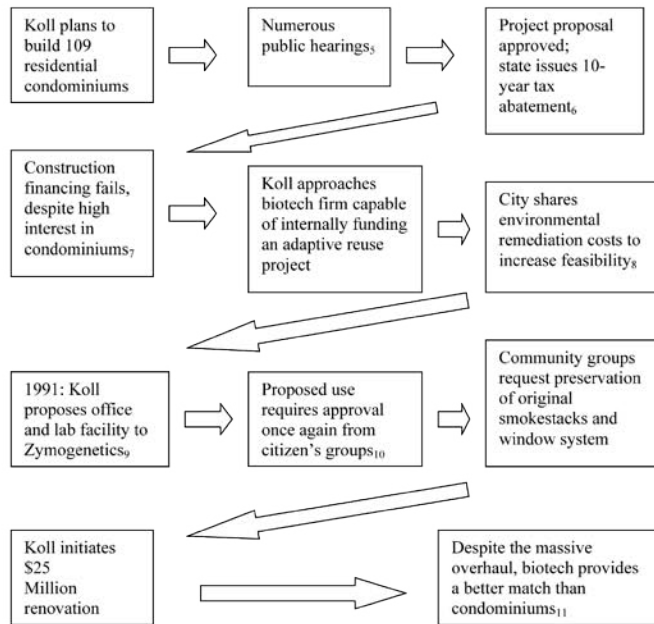
Steam Plant to Biotech

The decision-making process in the South Lake Union's Zymogenetics building

Site History & Former Use



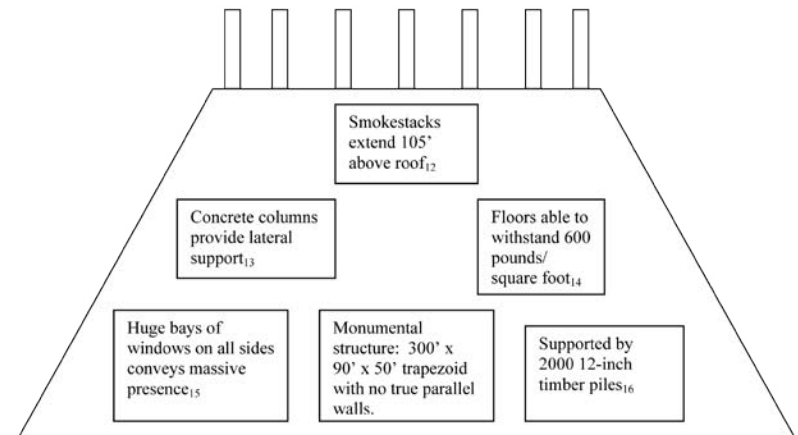
Feasibility of New Uses



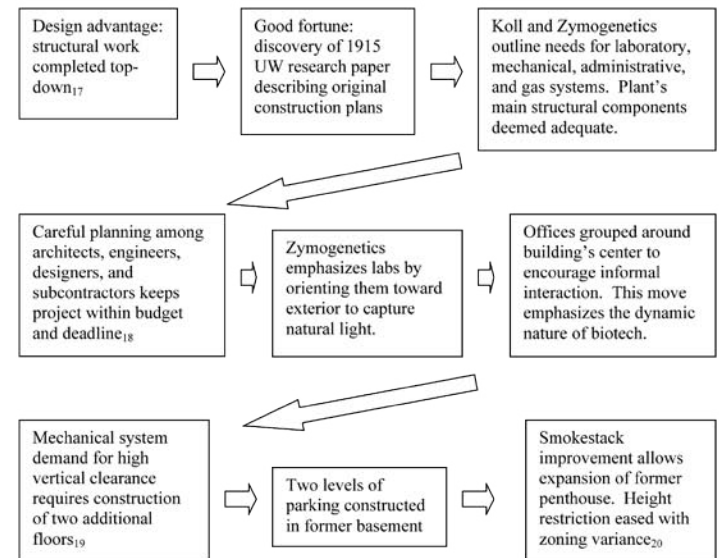
Steam Plant to Biotech

The decision-making process in the South Lake Union's Zymogenetics building

Physical Configuration

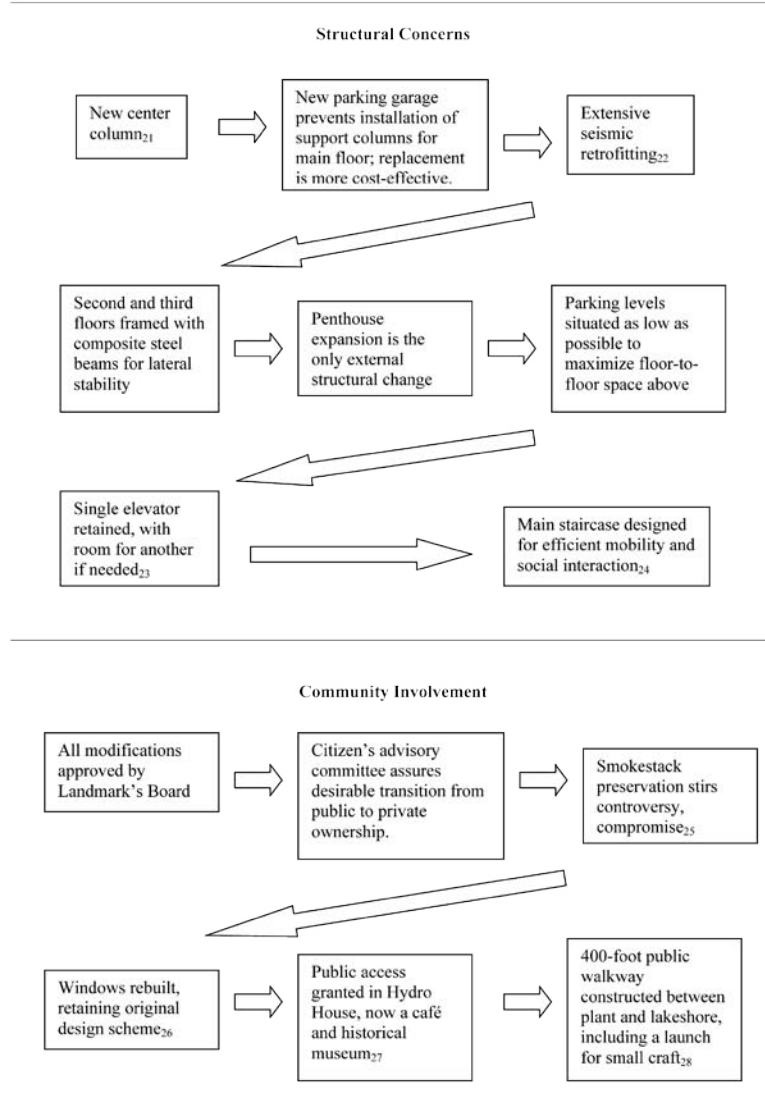


Conversion



Steam Plant to Biotech

The decision-making process in the South Lake Union's Zymogenetics building



Decision-Making Flow Chart Annotations

1. Built in three stages, construction of the Lake Union Steam plant began in 1911, and was completed in 1922. A prominent city landmark, the plant served as Seattle's main source of power until 1938, when it shifted to an auxiliary power provider. From 1938 to 1980, the plant's seven boilers remained operable.
2. In the years that followed decommissioning, the city tried unsuccessfully to find a buyer or alternative use for the building. The plant needed much repair and was extensively contaminated. The plant also became a temporary settlement for vagrants.
3. The hydro house resembles a small mission-style structure, built to generate turbine electricity from an upland reservoir. Both the plant and the Hydro House were nominated as historic landmarks by a citizen's group in an effort to save the buildings for future rehabilitation. The City of Seattle's Landmarks Preservation Board catalogs historic landmarks throughout the city. Ordinances describe rules governing maintenance and alteration of designated buildings and structures. In addition, the department adheres to standards set forth by the National Park Service's Guidelines For Rehabilitation of Historic Buildings.
4. Koll acquired the steam plant from the city in an exchange for another parcel.
5. Beginning in 1990, the proposed condominium project endured 28 public meetings with the Seattle City Council and a handful with the Seattle Landmarks Preservation Board. The designation of the Steam Plant and Hydro House as historic landmarks required thorough public involvement before commencing rehabilitation. In the adaptive reuse process, this crucial step ensures that preserved buildings will maintain desired characteristics as new uses emerge. The outcome of Koll's lengthy public involvement process resulted in gains for both the community and the developer.
6. As a financing incentive, the State of Washington issued Koll a 10-year property tax abatement.
7. A downturn in lending markets delayed residential financing significantly. It had already received deposits on 55 of the 109 units planned for the condominium project. Clearly, demand existed for residential dwellings. However, Koll struggled to secure nonrecourse construction financing. They continued to search for a

residential funding strategy.

8. Environmental clean-up costs can be substantial when restoring old industrial sites. To ease the burden and feasibility of new uses, the City of Seattle offered a \$1 million discount on the price of the property if Koll accepted it in its present condition. They estimated the clean-up costs to be less than this amount. Koll declined the offer, and the city proceeded with remediation. The move paid off, as Seattle spent nearly \$4 million to remove asbestos, heavy metals, oils, heavy concentrations of PCBs, and over 23 million pounds of piping, boilers, generators, turbines, and other materials.

9. Zymogenetics was considering numerous locations to house its rapidly expanding research operations. The steam plant appealed to Zymogenetics' parent company, Novo Nordisk, who supports the preservation and rehabilitation of historic buildings. Close proximity to the University of Washington also appealed to the company.

10. The steam plant's landmark designation required a new round of public involvement to ensure that biotech was compatible with the goals of the preservation board.

11. Preservation of two key building features, the smokestacks and large window bays, were mandated as a result of the public comment. Zymogenetics design scheme devised interesting strategies to integrate these preserved components into rehabilitation. Zymogenetics' vision for its new building allowed a much closer reproduction to the original design than the proposed residential use.

12. Enclosed in steel and brick, seven pairs of boilers helped support main floor and columns. Boilers also anchored 92-inch diameter smokestacks extending high above the roof. Guy wires running from the columns gave stacks additional lateral support.

13. The main operating levels, the basement and the main floor, were supported by cast-in-place concrete beam-and-slab structures with high load-bearing capacity.

14. Floors were also supported by main and intermediary columns 30-36 square inches. Deep lateral spandrel beams also contributed to lateral support of building shell.

15. The large window bays are one of the most conspicuous features of the steam

plant. Their preservation recalls an era of great civic pride in public works.

16. The plant is situated on mudflats near the shoreline of Lake Union. Each of the 2000 pilings extends below the mudline to ensure structural integrity.

17. Building conversion and rehabilitation can present many challenges and opportunities. During conversion of the steam plant, crews were able to work from the top-down since the exterior shell was already in place. This gave contractors a head start on intensive rooftop structural and laboratory mechanical work, enabling teams to finish ahead of schedule.

18. The lead architecture and engineering firms were already familiar with the buildings, having worked on the plans for the initial condominium proposal. Also, the project's interior designers had recently completed a pilot project for Zymogenetics near UW. Mechanical, plumbing, and electrical subcontractors provided additional expertise. Quick calculations of cost, constructability, and performance from all parties helped save time and money. Careful planning from the outset helped teams meet Zymogenetics' requirements for space, budget, and deadline.

19. To accommodate additional floors, the existing main floor was lowered 18 inches and the penthouse was expanded. This created extra space for offices and future expansion.

20. Building height greatly exceeded current zoning limits, but the structure was grandfathered under a previous ordinance. A variance was granted to expand the existing penthouse, due to the Landmark Board's requirement to preserve smokestacks. Removing the boilers- which provided structural support for the smokestacks- required expansion of this area for alternative smokestack support. In granting the height variance, the city demonstrated its willingness to help facilitate the preservation process through regulatory compromise.

21. It was determined that new floor slabs would overwhelm the current load capacity. Improvements to pilings and other foundational aspects were halted after discovering the presence of toxic waste. A new center column following existing line of pile caps solved this problem.

22. Demolition and changes in use required strengthening and bracing to meet seismic code.



23. The original building contained only one elevator shaft, shaping a social and functional interior design scheme. Space exists for a second elevator, if needed.

24. The grand staircase and atria are the focal pieces of the building's center. The staircase is faster than the elevator, and boasts a landing dubbed 'the raft', an informal gathering place to encourage social interaction among scientists and employees.

25. Preservation of the original building's seven smokestacks was one of the leading concerns that emerged from community meetings. The issue became controversial and received coverage from newspapers, radio, and television throughout the country. Koll and the Landmarks Board eventually reached a compromise calling for six new stacks to replace seven deteriorated originals. The new stacks are somewhat smaller, but preserve the look of the originals, and also ventilate the refurbished building.

26. Community groups wished to preserve the large window bays. The crumbling, single-pane window system needed an upgrade, however. Koll installed an aluminum window-wall system of energy-efficient glass, which retained the appearance of the old windows.

27. Since the steam plant was originally a public building, many wanted to preserve public access to Zymogenetics. The company requires high security, however, so public access is granted in the Hydro House. Inside, a cafeteria is open to employees and the public, and photos document the history and rehabilitation of the plant. Also, the main lobby and staircase can be viewed through a vestibule connected to the Hydro House.

28. The company president, a former Olympic rower, strongly supported these public amenities.

Endnotes

¹ City of Seattle, Department of Neighborhoods. South Lake Union Neighborhood Plan. May 17, 2005, <<http://www.cityofseattle.net/neighborhoods/npi/plans/slu/>>

² Gause, Jo Allen. New Uses for Obsolete Buildings. Urban Land Institute. Washington, DC: 1996.

³ Syal, Matt, Shay, Chris, and Supanich-Golder, Faron, Streamlining Building Rehabilitation Codes to Encourage Revitalization, Housing Facts & Findings, Volume 3 Issue 2, 2001



Appendix D

Client Assisted Memo 314



Department of Planning and
Development

Seattle Permits

— part of a multi-departmental City of Seattle series on getting a permit

Client Assistance Memo

314

Seattle Building Code Requirements for Existing Buildings that Undergo Substantial Alterations

Updated November 9, 2004

Buildings in Seattle that undergo substantial alterations or repairs are subject to Section 3403.12 of the Seattle Building Code (SBC), which defines and lists the special requirements that apply. This Client Assistance Memo (CAM) is intended to clarify the definitions of substantial alteration and provide guidance in how the Department of Planning and Development (DPD) applies Section 3403.

When designing an alteration of an existing building, the building owner and the designer should first determine whether the project will be considered substantial. In many cases, it will be difficult to determine whether or not a project is substantial and a presubmittal meeting is advised so DPD can gather the information it needs to make a determination. If the project is considered substantial, the next step is for the designer to evaluate the building's structural and life safety systems.

It is important to note that SBC Section 3403.12 does not require a substantially altered building to comply with all of the current code; it requires compliance only with specific sections. This CAM lists those sections and gives some guidance in determining how DPD will apply them.

For accessibility requirements, refer to Section 3406 which treats alterations differently.

Also, note that other technical codes may treat alterations differently. For example, the Seattle Energy Code requirements apply to the portion being altered, regardless of whether the SBC considers it a substantial alteration. Therefore, you'll want to check each technical code to determine the applicable requirements.

DEFINITIONS

The five definitions of substantial alterations as listed in SBC Section 3403.12.2 are:

1. Extensive structural repair.
2. Remodeling or additions which substantially extend the useful physical and/or economic life of the building or significant portion of the building, other than typical office tenant remodeling.
3. A change of a significant portion of a building to an occupancy that is more hazardous than the existing occupancy, based on the combined life and fire risk as determined by the building official. Table 3403.12 may be used by the building official as a guideline. A change of tenant does not necessarily constitute a change of occupancy.
4. Reoccupancy of a building that has been substantially vacant for more than 24 months in occupancies other than Group R-3.
5. A significant increase in the occupant load of an unreinforced masonry building.

TYPICALLY APPLICABLE PROJECTS

Definition 1: Extensive structural repair

Extensive structural repair occurs when the structural system of a building undergoes significant repairs. When severe deterioration of significant portions of a building's structural system is repaired, or when significant damage is repaired, the work will be considered substantial. A building which suffers severe damage in a earthquake or fire is likely to require extensive structural repair and therefore would trigger the requirements for a substantial alteration.* Typical projects which would not be considered extensive are replacement of an exterior stair or repair/replacement of water-damaged beams in a roof structure.

** Full compliance with the code is required by SBC Section 3403.6 when the cost of repair to a damaged building exceeds 60% of the building's value.*

Definition 2: Extending the useful physical and/or economic life of a building

Extending the useful physical and/or economic life of a building is the trigger most frequently used in determining whether a building is a substantial alteration. It is also one of the most difficult to determine, and varies considerably depending on the nature of the work being done and the condition of the building.

Routine maintenance of a building, by itself, will not trigger this requirement. Routine maintenance typically includes items such as painting, reroofing, replacement of light fixtures or replacement of plumbing fixtures. When routine maintenance has been delayed to the point where the building has suffered significant deterioration and requires expensive restoration, it may be considered substantial. Routine maintenance combined with some improvement work may also be considered substantial.

There are many ways to look at this definition of substantial alteration. Listed below are some of the criteria that are used most often.

Cost of project. Improvements to major systems such as electrical, plumbing and mechanical are often thought of as "hard costs"—the costs are relatively large and can only be justified over a longer period of time. Hard cost improvements thus more clearly extend the life of the building and carry more weight in determining whether a project is substantial. On the other hand, routine maintenance is often thought of as "soft costs"—items that are replaced on a regular basis. Many projects consist of a combination of work involving both soft and hard costs which most often will be considered to substantially extend the life of the building.

For the typical project, if the cost is high relative to the value of the building, it will be considered substantial. For example, if a project consists of new carpet, paint, upgrade of light fixtures, new toilets and sinks, a new roof and patching of plaster, and the cost is more than half the value of the building, it would probably be considered a substantial alteration. Even though most of these items alone would only be considered maintenance, the total amount of work would be great enough to justify a conclusion that the project is a substantial alteration. The fifty percent figure used here is not intended to be a fixed percentage but only as an example.

Existing conditions. A careful review of existing conditions is important in determining whether a given proposal will trigger substantial alteration requirements. A relatively new building may undergo a face lift with expensive new finish work and some minor alterations

and yet not trigger special requirements, while a very old and poorly maintained building that undergoes a similar project may be viewed as a substantial alteration. There are two reasons for this. One reason is a desire to correct the more serious life-safety hazards likely to be present in older buildings. The other reason is that the relative cost of the new work in relation to the value of the existing building is higher in the older building. In this case, the ratio of project cost to building value is viewed as being directly related to the extent to which the life of the building is being extended.

Size of project relative to building size and extent of use.

Alteration projects vary considerably from total building renovation to renovation of a portion of a floor; building use varies from fully occupied to completely vacant. It is the particular combination of these two items that becomes important in evaluating whether a project is substantial. A large new restaurant in a fully occupied high-rise building clearly is not a substantial alteration project. However, a similar project in an older, partially-occupied, three-story building is likely to be substantial. For example, many older downtown buildings have very limited, if any, use of their upper floors. Renovation of the tenant spaces on the lower floors of such a building, even though of a moderate size and scope relative to building size, may trigger the substantial alteration requirements.

When determining whether a project extends the useful life of a building, DPD will consider all these factors in combination.

Definition 3: A change to an occupancy that is more hazardous than the existing occupancy

A change to an occupancy that is more hazardous than the existing occupancy is determined by referring to Table 3403.12 of the SBC. Occupancies have been assigned a hazard rating based on factors such as the number of people expected to be present in the building, whether the people are awake, the amount of combustible materials present and likelihood that a fire will occur.

Questions about interpreting this trigger occur when only a portion of a building changes to a higher hazard rating. In those cases the deciding factors are generally the percentage of the building that is changing to the higher-rated hazard, and how significantly the hazard is increased. A small Group B restaurant space (combined rating of 2) that is converted into a Group M retail space (combined rating of 6) in a large building such as a high-rise will generally not trigger



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the requirements for a substantial alteration because the change in hazard rating 903 (automatic sprinkler systems), and affects only a small portion of the building. However, converting a significant portion of a building from a low hazard to a high hazard rating usually will trigger the requirements for a substantial alteration. For example, the conversion of an entire floor of a three-story building from a Group S-1 warehouse (combined rating of 4) into a Group A-3 assembly space (combined rating of 12) would be considered a substantial alteration.

Definition 4: Reoccupancy of a building that has been substantially vacant for more than 24 months in occupancies other than Group R, Division 3

The intent of this provision is to ensure that buildings with low or minimal usage are properly retrofitted when they become more fully occupied. A typical example is a multistory mixed use building with a business on the first floor and vacant second and third floors. An owner who wishes to reoccupy these upper floors will be required to comply with the substantial alteration requirements of SBC Section 3403.12.

Definition 5: A significant increase in the occupant load of an unreinforced masonry building

Substantial alteration requirements are necessary when an unreinforced masonry building is changed to a use that will have a significantly higher occupant load, based on SBC Section 1004.

DEALING WITH SUBSTANTIAL ALTERATIONS

The intent of SBC Section 3403.12 is to provide improved structural and fire life safety to a building that undergoes a substantial alteration. The extent of the improvements required is based on the size and scope of work and the relative hazard that exists. The ability of the design team to assess these two items and present proposals that appropriately address the hazards is critical to ensuring a successful resolution to this key SBC requirement.

When a project has been defined as a substantial alteration, SBC Section 3403.12.1 requires that the project be made to conform with the requirements of Sections 403 (high rise buildings, when applicable), special requirements for the Fire District found in Chapter 4, when applicable, Section 716 (protection of ducts and air-transfer openings), Chapter 8 (interior

finishes), 903 (automatic sprinkler systems), and Chapter 10 (means of egress). Fire alarms shall be provided by as required by the *International Fire Code*. Section 3403.12.3 requires evaluation and mitigation of seismic deficiencies. See Director's Rule 5-2004 for specific regulations for unreinforced masonry chimneys.

It is incumbent upon the design professionals to provide a critical evaluation of the adequacy of the life safety and seismic systems in the building. The basis for evaluation shall be the above-mentioned sections of the SBC, or for seismic systems, either Chapter 16 or an approved alternate standard. Director's Rule 32-96 lists approved alternate standards. The evaluation must include a detailed and prioritized list of all items found to be deficient.

Ideally, all items found to be deficient will be corrected. However, in many cases it is recognized that to remedy all deficiencies will impose severe hardships on the building owner. The building code provides DPD with significant flexibility to resolve specific hardship issues. There are three methods by which the applicant may seek relief. SBC Section 104.14 allows DPD to modify the code where the applicant demonstrates that the specific code requirements are impractical. Section 104.15 allows the applicant to identify design solutions which will provide equivalent protection. Section 3403.4 allows the building official to waive code requirements in some circumstances.

The determination to modify or waive a code requirement is dependent on the ability of the design team to provide adequate justification for a proposal. Justification may include *cost benefit analysis, functional issues, total costs, testing, risk analysis, professional judgment, and redundancies*. The more comprehensive and well-justified the applicant's analysis of the issues involved in the project, the more likely the applicant will succeed in obtaining approval for the proposal.

GETTING CONCEPT APPROVAL VIA A PRESUBMITTAL CONFERENCE

For many applicants it is desirable to schedule a presubmittal conference with the building official to get *concept approval* of significant code issues prior to applying for a building permit. Concept approval can greatly facilitate the plan review process and can be in the form of applicant-generated minutes which will be reviewed and approved by the building official.

The presubmittal conference is an opportunity to present your proposals and appropriate justifications, determine if your project is a substantial alteration, and

resolve code issues. To schedule a presubmittal conference, call the DPD Applicant Services Center at (206) 684-8850.

QUESTIONS?

If you have questions about the requirements for making substantial alterations, call DPD's Technical Backup for the Seattle Building Code staff at (206) 684-4630.

Access to Information

Links to electronic versions of DPD **Client Assistance Memos (CAMs)**, **Director's Rules**, and the **Seattle Municipal Code** are available on the "Publications" and "Codes" pages of our website at www.seattle.gov/dpd. Paper copies of these documents, as well as additional regulations, are available from our Public Resource Center, located on the 20th floor of Seattle Municipal Tower at 700 Fifth Ave. in downtown Seattle, (206) 684-8467.

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Triangie Study



Executive Summary

Purpose of Project and Planning Context

Seattle is an area rich with neighborhood diversity. Visitors and residents alike enjoy the ability to soak up urban culture on Capitol Hill or stroll beside the water along Alki Beach. Indeed, the sense of neighborhood identity and strength of neighborhood planning is apparent in nearly every corner of Seattle. One exception is the area bounded by Broad Street, Denny Way and Aurora Avenue North. At times nicknamed the “Bermuda Triangle,” these twelve blocks of land bordered by Downtown, The Seattle Center and South Lake Union (SLU) have not yet been claimed by any neighborhood or urban village planning process. This report aims to stimulate a discussion about the future of the Triangle and presents alternative long-term development plans that can help the area reach its full potential.

Alternatives & Evaluation of Alternatives

Alternative A: Transit Supportive Community emphasizes the Triangle’s provision of critical infrastructure for alternative modes of transportation. The centerpiece of the alternative is the monorail-streetcar intermodal station at 5th Avenue North and John Street. The monorail will connect the area to the neighborhoods of Ballard and West Seattle, while the Thomas Street Streetcar will connect the area to South Lake Union, Westlake Center and possibly the downtown waterfront.

Alternative B: The Village on the Triangle (TVT) creates a family-friendly environment by providing housing for a variety of incomes and household types, neighborhood services, multi-modal accessibility, incentives for mixed-use development, and open space in the heart of the neighborhood.

Alternative C: Tri Biz connects Seattle Center and South Lake Union with non-motorized, pedestrian friendly streets and trails. It includes a mix of entertainment for families and adults by providing incentives for restaurants and entertainment venues. Those venues will attract tourists and residents by providing hotels and unique retail uses. Finally, the alternative supports the growing South Lake Union population by providing housing and childcare.

Recommendations

In the process of developing and evaluating the three alternatives, four common elements were identified: connectivity, housing, accessibility and mixed use/

services. These priority elements should be incorporated into the final plan for the area. In order to implement the four priority elements, the City should take the following action steps:

- Work with community groups and other stakeholders to determine which Urban Center should annex the triangle
- Develop a station overlay for Broad Street station to ensure new mixed use development in this area is consistent with the form and function of the transit station.
- Identify and pursue opportunities to increase multi-modal connectivity across Aurora Avenue.
- Cultivate partnerships with housing developers and provide financial incentives to encourage housing development in the triangle.

Introduction and Purpose

Seattle is an area rich with neighborhood diversity. Visitors and residents alike enjoy the ability to soak up urban culture on Capitol Hill or stroll next to the water in West Seattle. Indeed, the strength of neighborhood planning is apparent in nearly every corner of Seattle. An exception is the area bounded by Broad Street, Denny Way and Aurora Avenue North. At times nicknamed the “Bermuda Triangle,” this twelve-block area is bordered by Downtown, the Seattle Center and South Lake Union (SLU), but has not yet been claimed by any neighborhood planning process. This report aims to stimulate a discussion about the future of the Triangle and presents alternative long-term development plans that can help the area reach its full potential.

The biggest opportunities for the area lie with several large development projects. South Lake Union is the target of renewed development plans, with large investments planned or already underway for South Lake Union Park, transportation infrastructure, mixed-use residential development, retail, and other commercial services. The Seattle Monorail Project’s Green Line planning is nearing completion, and a station is planned in the Triangle itself. Lastly, plans to lower Aurora Avenue North and tunnel (or even eliminate) Broad Street may alter the area drastically.

Bearing these factors in mind, this report will give some much-needed attention to the Triangle’s long-term development potential. The first section discusses the process of developing this report and methods used in estimating housing units

for each alternative. The second section describes three alternatives for the Triangle, including a no-action alternative. Each alternative provides information and support for a unique program of development. The next section evaluates the alternatives based upon goals drawn from Seattle's Comprehensive Plan. A comparative matrix will give a quick overview of the benefits and drawbacks of each alternative. The final section of this report gives recommendations and further action steps for continuing the process, including gathering public input. The report also includes site plans and visual representations of the alternatives and their defining features. The appendix includes existing conditions for the area and its environs, as well as summary tables of projected impacts on jobs, housing, and population from each alternative.

Methods & Process

The Triangle presents itself as a blank slate with respect to planning for the future. The purpose of the report is to stimulate the imagination of the community regarding long-term development possibilities for the Triangle area. The methodology employed herein was directed toward that end.

The process began with an assessment of existing conditions in the Triangle with respect to land use, transportation, history, housing, social demographics, economy, and relationships to surrounding neighborhoods. This research provides an overview of how the Triangle has changed both recently and in the last 100 years.

Common criteria used to create each alternative were developed initially through brainstorming. The resulting criteria were then validated against the themes embodied in the City of Seattle Comprehensive Plan, specifically in the areas of housing, transportation/connectivity, land use & political compatibility, economic vitality, and urban village features, to ensure consistency. Once this was completed, ideas were supplemented with transferable suggestions from other City of Seattle documents, such as neighborhood plans for adjacent neighborhoods, Summary of Plans and Gaps from Urban Design Forum 2000, City wayfinding studies, the Blue Ring 100-Year Vision, and the Heartland and Sommers Reports. Additionally, some alternatives relied on case studies to support select elements. These cases were selected to showcase elements implemented in other communities that were directly applicable to the Triangle.

Each alternative and their respective evaluations are presented within. The

alternatives should be treated not as definitive responses to the challenges and opportunities presented in the Triangle, but as expressions of the Triangle's potential. The following pages contain three alternatives that aim to capture the spirit of existing plans and spark the imagination of the community. It should also be noted that public input is an important element in the successful adoption of any neighborhood plan; it should be given consideration in weighing the alternatives once the public has had a chance to provide input on the alternatives.

No Action Alternative

Goals

- The uses and character of the Unnamed Triangle evolve as a result of the forces at work in the surrounding neighborhoods and other market influences.
- Site development occurs with uses similar to those occurring historically in the neighborhood.

Vision Statement

Outside of zoning regulations, the City of Seattle Department of Planning and Development (DPD) takes no active role in guiding the development of the Triangle. Real estate developers and the private market drive growth and changes that occur in the area.

Description

The Triangle is a twelve block area in Seattle Central City, bordered by Broad Street, Aurora Avenue North, and Denny Way. While not included in any of the City's neighborhood plans, it is surrounded by the South Lake Union, Uptown Queen Anne, and Downtown neighborhoods. Currently, the area's primary uses include surface parking, offices and hotels. The only housing in the area consists of one apartment building which houses approximately ten residents.



Common example of uses: a parking lot, an older hotel and a new office use

Historically, many uses around the area have been geared toward adult entertainment and other uses which may not reflect the goals of a livable and walkable central Seattle. Investment in the area is lacking, as evidenced by deferred maintenance, vacant buildings and surface parking lots.

Principle Features of Alternative

- The Triangle remains an unplanned area outside of surrounding neighborhood boundaries.
- New Monorail Green Line station developed inside the Triangle.
- The lack of connectivity around the Triangle will generally mean that uses within the area remain isolated.
- The area contains no public spaces or parks.
- Long-term, proximity to the Central City will lead to a ripple-effect of economic growth from downtown and surrounding neighborhoods

Description & Implementation of Key Components

Future Development

The City will take a “hands-off” approach to visioning and public process in the Triangle. Major investments in South Lake Union and downtown will draw investment away from the Triangle, lengthening the timeline for growth in the area. After South Lake Union fully develops and attracts residents, the Triangle may experience some ripple-effects in terms of redevelopment. The Gates Foundation building may also provide opportunities for investment in office and retail development due to its proximity to the Triangle. Without DPD involvement, the market will drive some improvements in the area. However, the challenge in augmenting the existing community identity may lead to a disjointed assortment of uses and building types. The Triangle may draw little residential development and few visitors, and the area’s isolation due to the sharp edges of Denny Way, Aurora Avenue North, and Broad Street may make the area a haven for secondary uses until full build-out of surrounding neighborhoods is achieved.

Implementation

There are no implementation steps required for the City, beyond zoning and code enforcement. The extent to which private development will change the neighborhood’s built environment and character is unknown.

Alternative Evaluation

Housing

Pros

- No displacement of existing Triangle residents.
- Seattle Mixed-Use Zoning supports housing development in the neighborhood.
- Lower land prices may lead to some affordable housing.

Cons

- New housing may be developed over a long time horizon.
- Diversity of housing choices cannot be guaranteed.
- Public/private partnerships will not be explicitly encouraged.

Economic Development

Pros

- Property values will increase as the areas surrounding the Triangle become built-out and more desirable.

Cons

- Market-driven uses may mean lower wage jobs, such as those in service stations and chain restaurants.
- Isolation of the Triangle will maintain prevalence of the automobile.

Urban Village

Pros

- Area may develop around Monorail station in the Triangle.
- Zoning may encourage mixed-use development in the Triangle.

Cons

- No formal enhancement of community identity.
- No public investment in streetscapes, parks, and other public facilities in the Triangle.

Land Use and Implementation

Pros

- Implementation feasible under current zoning and regulations; minimal staff time required
- Demand may drive increase in short-term investments.
- After South Lake Union is built-out, the Triangle may develop.

Cons

- Lack of planning for the area means it will not help Seattle achieve the density and housing goals slated in its Comprehensive Plan.
- Lack of a neighborhood plan will fail to encourage sustainable long term uses.

Transportation

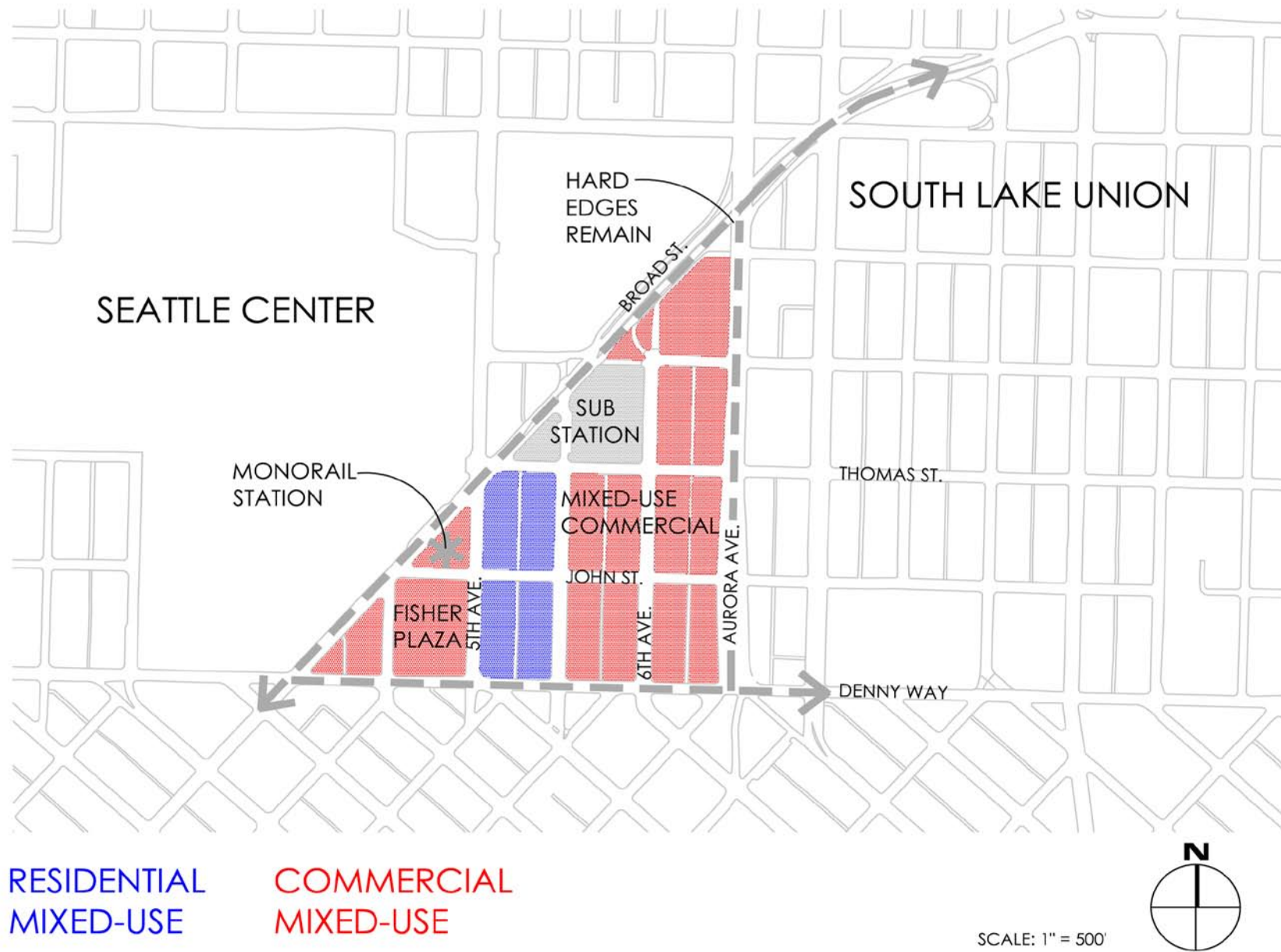
Pros

- Monorail station will add additional mode of transportation in the Triangle.
- Existing public transportation options appropriate for current uses.
- Development will reflect availability of transportation.

Cons

- Connectivity to surrounding areas by walking and bicycling not supported by current infrastructure.
- The Triangle will remain an automobile-focused area because of surface parking; may not meet City's parking management goals.

NO ACTION ALTERNATIVE



Alternative A: Transit Supportive Community

Goals

The over-arching goal of the Transit Supportive Community alternative is to maximize use of transit and non-motorized modes of travel within the neighborhood. This alternative will increase mobility, increase residential density, encourage economic development, and boost property values.

Vision Statement

The transit station community will be a walkable, livable neighborhood where services and amenities will be easily accessible to residents. Automobile ownership in the neighborhood will be lower than in the city overall, and more people will take transit to destinations outside the neighborhood. Vibrant pedestrian-oriented streetscapes, along with a variety of commercial and retail businesses, will be key amenities for residents and visitors alike.

Principal Features of Alternative

- Excellent transit station design
- Extension of the SLU streetcar to the Triangle on Thomas Street
- Employ the “green street” concept along Thomas Street
- Transit encouragement

Supportive Features of Alternative

- Compact mixed-use development focused around the Monorail station at 5th Avenue and Broad Street
- Soften the area’s edges

Case Studies

Given its natural advantages, such as its proximity to downtown and existing and future transit lines, the Triangle area will certainly change in the future. The question is how to harness the area’s potential to guide change so that it is consistent with the community’s vision of Seattle as expressed in the Comprehensive and the neighborhood plans.

Colorado Springs, Colorado

One community that has taken a proactive approach to an urban area that lacked a cohesive vision is Colorado Springs. As in this alternative, Colorado Springs wanted the 100-acre “Palmer Village” area to focus on transportation choices, a range of office and retail opportunities, and housing for a diverse and thriving community. The plan was approved in 2001¹.

With regard to transportation, the City planned the area to be served by a bus transfer center and a future commuter rail stop, reducing reliance on personal vehicles². Similarly, the Triangle is expected to be served by a monorail station and could also be served, in this alternative, by an extension of the South Lake Union streetcar.³



Bird's eye view of Palmer Village. Source: <http://www.springsgov.com/Page.asp?NavID=3657>

Portland, Oregon

Portland, Oregon has implemented several successful development projects in conjunction with transit, including the MAX regional rail system, Portland Streetcar, transit-supportive development projects like Orenco Station, and programs like property tax exemptions⁴.

Transit-supportive development is an integral part of municipal and regional transportation and land use planning in the Portland region and is used as a primary tool for maintaining compact urban form, reducing dependence on the automobile, and supporting reinvestment in centers and corridors. In addition, transit-supportive projects have helped spur housing and economic development projects in several areas of the city, including the renowned Pearl District in downtown Portland.

As a result of Portland’s investments in transportation infrastructure and aggressive policies, transit ridership has grown at a significantly higher rate than the population or vehicle miles traveled since 1990⁵. In addition, innovative public-private partnerships between the City and the development community

have leveraged significant investment from the private sector. In the Pearl District alone, over \$750 million in transit-supportive projects have occurred along the line since 1997, several due to public/private partnerships.

Description & Implementation of Key Components

Monorail Station Design

The monorail station at 5th Avenue and Broad Street will be the anchor of the Transit Station Community. The monorail station should be designed to attract as many riders as possible while creating the maximum benefit for the surrounding community.

The City of Seattle's Integrating the Monorail program established a comprehensive set of station design guidelines for the monorail project. The guidelines should be incorporated to the fullest extent possible. In general, the guidelines recommend that monorail stations:

- Provide clear connections
- Fit in with the landscape
- Provide comfort
- Emphasize human-scale features
- Be welcoming, comfortable and safe
- Include amenities supporting intermodal connections and neighborhoods
- Contribute to a high quality street environment
- Incorporate landscaping and open space
- Provide comfortable, safe and functional pedestrian circulation
- Provide access for cyclists
- Maintain adequate circulation for vehicles while discouraging parking near the station
- Provide clear, coordinated and appropriately scaled wayfinding ⁶

With regard to the Broad Street Station, the City specifically recommends extending the Seattle Center to the new station. This may be accomplished by:

- Incorporating landscaping and open space into the site plan
- Improving pedestrian connections to the north across Broad Street and to the east across 5th Avenue
- Providing station entries to the north and west to provide direct access to Seattle Center ⁷

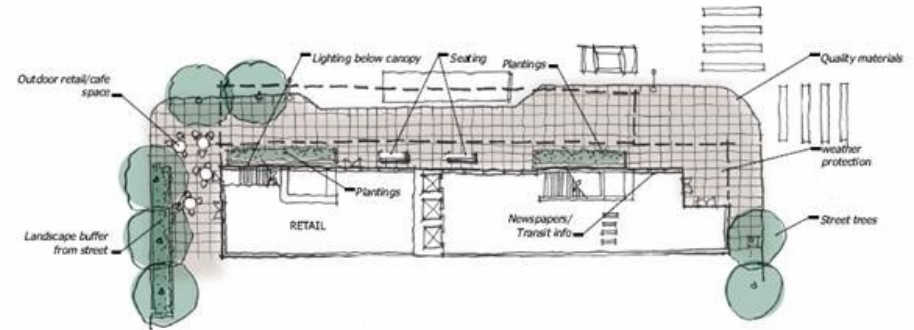
In this alternative, Broad Street is eliminated, so ensuring comfortable connections to Seattle Center can be done more easily. A station designed in accordance with

the above guidelines will be a valuable asset for the neighborhood and will create significant opportunities for new transit-supportive development.

Monorail Station Design Implementation

The Integrating the Monorail program identified a number of key action steps needed to implement the design guidelines in the Seattle Center area. These include the following:

- Develop comprehensive access plan to outline needed improvements
- Develop station area overlay zones



- Include Triangle within an Urban Village/Center
- Develop parking mitigation plan
- Implement public realm improvements ⁸

Thomas Street Streetcar

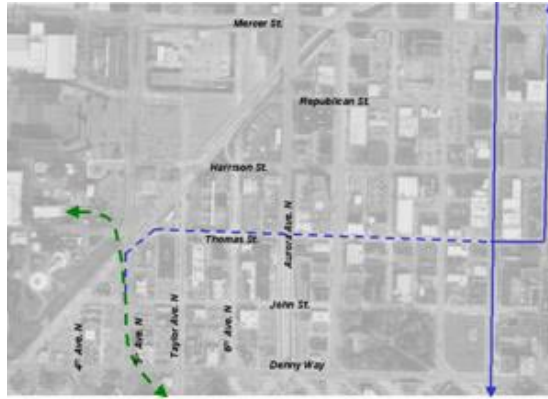
The South Lake Union Streetcar's goals are to provide local transit service to connect to the regional transit system, encourage economic development, and help create vibrant neighborhoods⁹. Extending the streetcar along Thomas Street into the Triangle area is not only a physical extension, but an extension of these goals as well.

To private developers, the construction of a streetcar extension will demonstrate a commitment to providing the Triangle with reliable mass transit and will encourage the construction of transit-supportive housing. With the streetcar extending from SLU to the monorail, the Triangle will become an important transit hub, connecting residents, employees, and visitors to distant Seattle neighborhoods via the mass transit network.

Notably, the streetcar will provide a direct link for Triangle residents and businesses to South Lake Union, facilitating travel to and from the area for thousands of travelers. In addition, the streetcar may be connected to the existing waterfront streetcar in order to increase accessibility and enhance the utility of the streetcar.

Thomas Streetcar Implementation

Implementation of the streetcar extension will require substantial coordination and investment on the part of transit agencies and municipal governments. The streetcar extension planning and operations should be run from the same office as the SLU streetcar to ensure efficiency in capital investment and planning. It is also important that streetcar station planning be coordinated with the Seattle Monorail Project's station planning process, since the streetcar makes sense only if it connects with the Green Line (see map above). Last, streetcar and green street planning should be integrated so that one process does not diminish the chances of success of the other.



Proposed extension of the streetcar (dashed blue) with Monorail Green Line in green

Thomas Street as a Green Street

“Green street” has different meanings in different contexts, but a basic interpretation that Seattle has used in other contexts is a pedestrian-friendly street with open spaces that is still accessible for automobiles. The goal of the green street proposed here is to create connections with the greater community, and to ensure comfort and access for people using a variety of modes of transportation. The Streetscapes section of this report identifies Thomas Street as the highest priority for improving pedestrian mobility in and around South Lake Union. In this alternative, the Thomas Street green street (from Broad Street to Aurora Avenue North) and the Monorail/streetcar intermodal station are the focus of the Triangle community. Shops and apartments open onto the street, with generous shaded sidewalks providing a pleasant pace to stroll. The streetcar runs in the middle of the street, flanked by one lane of traffic in each direction. Stations will emphasize access and safety. Street parking is provided on either side of the street. The goal, once again, is to provide a superior infrastructure for users of alternative modes of travel.

Green Street Implementation

Several actions are required to bring the green street to fruition. First, the street must be designated as such in a community plan developed in cooperation with the public, as it currently is in the Blue Ring 100-Year Vision draft¹⁰. Green street standards, perhaps neighborhood specific, must also be agreed-upon and codified. Finally, the City must invest a significant amount of time and money to renovate Thomas Street with a rail line, street trees and generous sidewalks. The City will not have to accumulate any more right-of-way, as the present right-of-way is wide enough to accommodate the streetcar. Additionally, the City will be able to accommodate bikes in automobile lanes since auto traffic will move no faster than 30mph.

Transit Encouragement

Transit encouragement is a general term that encompasses a broad array of strategies to encourage people to use transit rather than drive alone. These strategies include, but are not limited to the following:

- Improve transit service
- Reduce fares and offer transit discounts
- Implement commute trip reduction, commuter financial incentives and other Transportation Demand Management (TDM) programs
- Improve rider information and marketing programs
- Create a multi-modal access guide that includes maps, schedules, contact

numbers, and other information on how to reach a particular destination by public transit ¹¹.



*Existing Seattle Monorail.
Source: Seattle Monorail*

Increased transit ridership has many benefits that directly relate to the land use and environmental goals of the Seattle Comprehensive Plan. If successfully implemented, these strategies may lead to lower automobile ownership and lower demand for parking in the neighborhood, increasing development capacity, convenience and overall livability in the area.

Transit Encouragement Implementation

The implementation of transit encouragement strategies will require partnerships among the City, transit providers, developers, employers and community groups. By establishing these partnerships up front, the City will have the ability to incorporate these strategies into its plans for the area. If implemented concurrently with new development, transit encouragement strategies will help to enhance the neighborhood's image as a transit supportive community and will attract residents more inclined to use transit.

While the focus of this alternative rests squarely on transit improvements, other elements complement transit and other alternative modes of transportation to help build a healthy and vibrant neighborhood. A short discussion of two supportive components follows.

Compact Mixed-Use Development

New development consisting of a mixture of office, retail and residential units will be clustered around the Broad Street Station and along the Thomas Street streetcar and green street. Development along the adjoining streets will integrate with the design of the station and streetcar in order to maximize linkage between the neighborhood and the transit lines.

Along 5th Avenue and Thomas Street, ground floor retail uses will create an active streetscape that will provide a vibrant community meeting place for residents and draw in visitors to Seattle Center. Storefront facades will incorporate pedestrian-scale design features to create an attractive and inviting environment. Eateries and coffee shops in this area will include outdoor café seating to enhance and enliven the streetscape atmosphere.

Given the current lack of housing in the neighborhood, new residential development in the area is a must. In this alternative, the priority area for new residential development will be along 5th Avenue, John

Street and the Thomas Street green street. Residential uses above ground floor retail establishments will bring human presence and pedestrian flow in the area, increasing the safety and overall attractiveness of the area.

The entire area has a capacity for approximately 2,700 units, assuming an average unit size of 900 square feet. For methodology and additional projections, please refer to Appendix B.

Compact Mixed-Use Development Implementation

Seattle Mixed zoning already allows the type of mixed-use development described above. However, flexible zoning may not be sufficient to spur new development in this unproven residential market. The City may need to contribute financial or other incentives to developers to encourage development early on, especially if affordable housing is included. Additionally, the City will need to invest in streetscape enhancements and improved pedestrian crossings, particularly along 5th Avenue.

In order to accommodate as much development as possible in the area, no more than the optimal amount of parking should be required in the area. Excess parking will lower development capacity, add to the cost of new housing and discourage residents from taking transit. The City should prepare a forecast of



An example of compact mixed-use development in the Fremont neighborhood.

parking demand in the area (taking into account the proximity to high-capacity transit) and should consider relaxing both residential and non-residential parking requirements, where appropriate. Parking policies should also take into account any transit encouragement programs implemented in the neighborhood (above).

Soften the Area's Edges: Broad & Aurora

Taken together, Denny Way, Broad Street, and Aurora Avenue North bound the triangle; their character also physically isolates the Triangle from adjacent areas of Seattle. Of these “edges,” Denny is the least obtrusive. In this alternative, intersections along Denny are improved with enhanced crosswalk markings and signals. Unfortunately, little can be done to align the north-south streets north of Denny with streets south of Denny; clear signage is thus very important.

Broad Street presents a challenge because part of it is tunneled, disconnecting the Triangle from the Seattle Center and lower Queen Anne. Although Broad Street is the only street to connect Lake Union directly to Elliot Bay, its utility in this regard is overshadowed by its negative impact on the Triangle. Its tunnel



Crossing at Aurora at Thomas Street.

prevents all types of crossing; even when Broad Street is at grade, there are few crosswalks. In fact, the City has posted “no crossing” diagrams to prevent people from crossing Broad Street between the sparse crosswalks. Therefore, this alternative proposes eliminating Broad Street north of Denny, reconnecting 6th Avenue North from Queen Anne, and rededicating the existing right-of-way for the Bay-to-Lake Trail. See the siteplan at the end of this subsection for a visual representation of the changes.

The Bay-to-Lake trail is part of the larger Blue Ring concept to connect Center City neighborhoods and destinations with “public open spaces” accessible to pedestrians and bicyclists.¹² The portion along Broad Street is intended to connect South Lake Union, Seattle Center, and Myrtle Edwards Park

along the Elliot Bay waterfront. The existing route along Broad Street is ideal in terms of location, but it lacks trail-user amenities, especially near the Triangle.

Transforming the existing right-of-way into a multi-use path will not only reconnect the Triangle with the Seattle Center and the Queen Anne neighborhood, but offer

a special opportunity to complete an important link in the Blue Ring. The benefit to drivers will be a simplified street network. East-west routes will connect directly to Seattle Center, while north-south routes will connect directly to Queen Anne. In short, the City has a rare opportunity to transform a barrier into a connection.



Proposed “Blue Ring.” Source: The Blue Ring: 100-Year Vision. City of Seattle CityDesign. Revised Draft June 2002.

The third and most rigid edge is Aurora Avenue North. In this alternative, Thomas Street will connect over Aurora to connect the green street and streetcar concepts from South Lake Union. Given that new connection, streetcar riders, cyclists, and pedestrians will find South Lake Union at their doorstep, rather than on the other side of an intimidating highway.

Implementing “Edge Mitigation”

Edge mitigation is extensive in reach, and likely expensive. It challenges the community to re-imagine the Broad Street corridor, but also presents tremendous travel advantages—a goal that underlies this entire alternative. Without connectivity, the Triangle cannot reach its full potential as a transit-supportive community with strong links to surrounding neighborhoods.

As a first step, the City must assess the practical and economic feasibility of such a re-design of area streets. If projects are shown to be feasible in the long-term, the City should engage the South Lake Union, Queen Anne, and Triangle areas in a planning process, describing the potential benefits and drawbacks of such a re-design, and formalizing recommendations supported by the neighborhoods.

Coordination among City departments and the State is important since these projects involve a State highway.

Alternative Evaluation

Housing

Pros

- Addresses parking requirements
- Develops housing in concert with transit improvements
- Encourages residential uses in mixed use development

Cons

- Includes no specific methods for attaining affordability
- Does not specifically address housing diversity

Economic Development

Pros

- Maintains commercial development pattern along Aurora Avenue North and Denny Way
- Supports job growth within downtown urban area

Cons

- Job growth not focused on a particular sector
- Retail jobs may be below living wage

Urban Village

Pros

- Compact mixed-use development near transit
- Encourages infill development
- Helps to foster new community identity

Cons

- No significant concentration of open space
- No specific recreational facilities

Land Use/Political

Pros

- Implementation feasible under current zoning
- Consistent with city goals and plans

Cons

- May require land assemblage
- Includes potentially expensive capital projects

Transportation

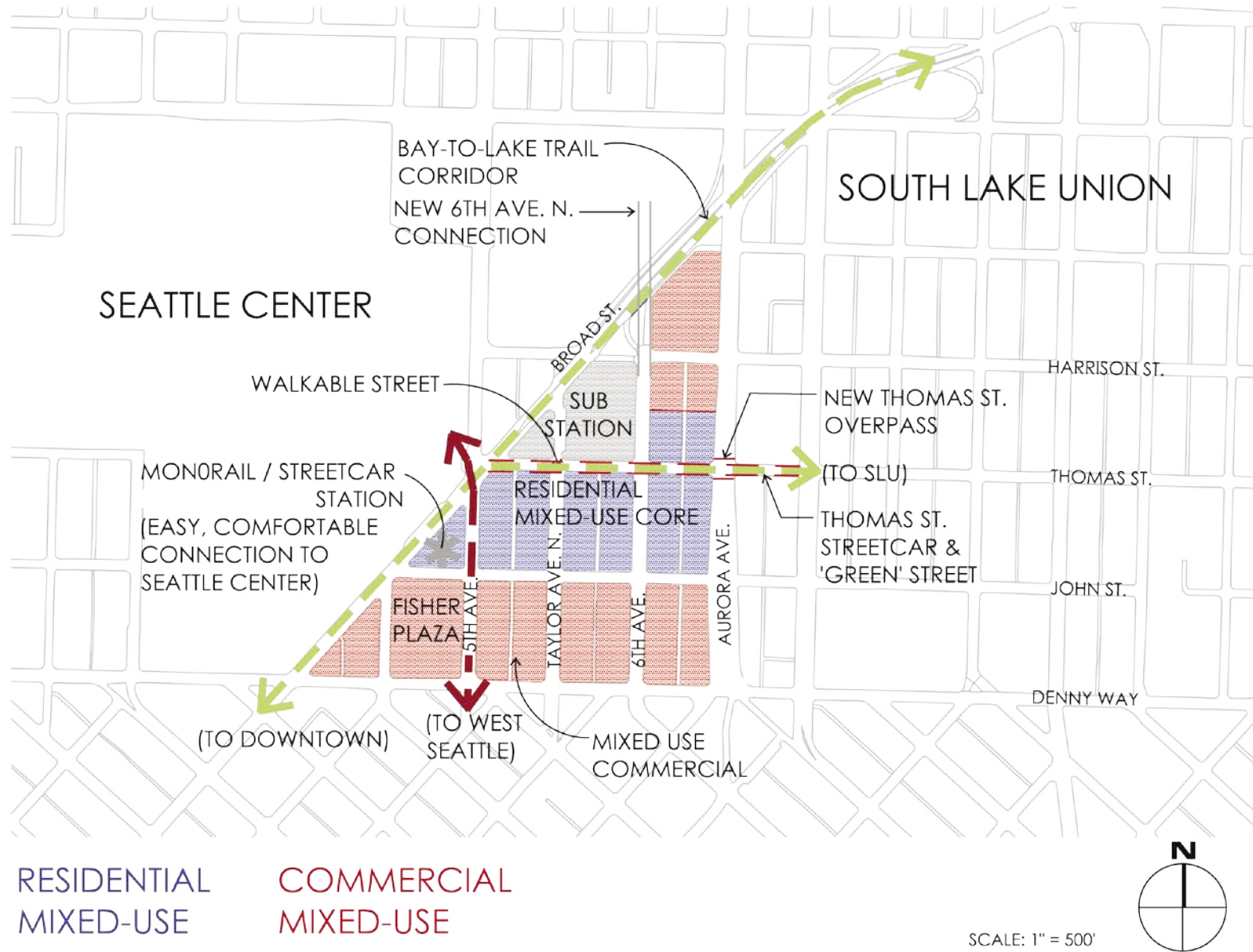
Pros

- Incorporates programs to encourage transit, HOV and non-motorized modes
- Provides access to three modes of public transit (bus, Monorail and streetcar)
- Incorporates parking management
- Improves non-motorized trail network

Cons

- Relies on development of Broad Street Station
- Reduces automobile flow capacity

ALTERNATIVE A: TRANSIT SUPPORTIVE COMMUNITY



Alternative B: The Village on the Triangle

Goals

- Create a family-friendly environment, including adequate services for residents
- Provide a mix of housing types for different income levels
- Promote adequate density for affordability and community identity
- Encourage development based on multi-modal accessibility
- Provide incentives for mixed-use development
- Establish a transitional scale of housing facing the South Lake Union neighborhood.
- Create a “heart” for The Village on the Triangle (TVT) that includes public open space that complements residential uses, including a park and P-patch for local residents.

Vision Statement

TVT will be a mixed-use residential neighborhood, with housing and services targeted at young professionals, families, and seniors. It will be a well connected to all of the surrounding areas, including Belltown, the Denny Triangle, South Lake Union and Queen Anne, by foot, bicycle, Monorail and automobile. TVT includes services that its residents, and those of the surrounding neighborhoods, need, such as restaurants, child care centers, a small school, a park, neighborhood retail and close access to most everything else. TVT is truly a family-friendly neighborhood in the middle of everything.

Principle Features of Alternative

- Housing
- Services and Amenities
- Multi-modal connections

The focus of the design is to create a family environment that blends residential development with services and amenities, such as a park and P-patch with pedestrian-friendly streets, while encouraging human-scaled neighborhood services and businesses.

Housing

Being such a small area, TVT will feel like a true urban village. The housing mix in TVT, which will include affordable condos, market rate apartments, townhouses,

and senior apartments, will provide an opportunity for residents to change housing types as their lifestyles change over time while staying in the neighborhood.

Connectivity

TVT is connected through several modes of transportation to the center city and the Puget Sound Region with bicycle paths, wide sidewalks for strolling, a monorail station within the neighborhood, and adequate underground and structured parking. Because TVT sits between some of Seattle’s best known areas—including Belltown, the Space Needle, and the up-and-coming South Lake Union, the new transportation infrastructure is compatible with the neighborhood’s feel—the days of the Triangle as an isolated throughway are over. TVT is a neighborhood well connected to the rest of Seattle.

Services and Amenities

A residential mixed-use neighborhood needs the services that attract a mix of residents. TVT will include a dense residential core, with small shops such as a coffee shop, convenience store, dry cleaner, and several restaurants. The larger services, including a full-service grocery will be within a short walk, bike ride or drive, in South Lake Union, Uptown Queen Anne, or Belltown.

TVT will include a day care and magnet urban elementary school focused on the life sciences, which will double as a Boys-and-Girls Club and community center after school hours. A small pocket park next to the school will give residents a place to walk their dogs, grow vegetables in the p-patch or play on the swings. TVT will have or be within walking distance to nearly everything its residents need.

Case Studies

Chicago Community Schools—Chicago, Illinois

Residents in the Seattle City Center neighborhoods are without certain amenities, such as a complete grocery store, a hardware store, and a school. Development of a school will go a long way in drawing families and establishing the Triangle as an urban village. Placing a school in the study area will also meet the needs of surrounding communities which have an interest in educating their children. Placing a school in geographic center between Queen Anne, Belltown, and Downtown will help tie these neighborhoods to the Triangle. This case study highlights how a public school facility can add a much-needed element to a neighborhood.

Chicago public schools, struggling with budget cuts, are looking to innovative

public-private partnerships to extend schools' hours and expand services, while also contributing to developing stronger urban communities. One example, according to Chicago schools' Chief Executive Officer Arne Duncan is "the Boys and Girls Clubs have actually closed three of their sites... and are simply running programs out of our schools. So, we run the schools from 9 a.m.-3 p.m. and they run the school from 3 p.m.-9 p.m. It has dramatically cut their overhead and their funders love it because all of their money is now going to kids through tutoring, and mentoring, and academic programs."

Additionally, Duncan has focused on linking urban schools with parks and other public services, and adopted a small schools agenda in order to fight the status quo of public education as an "island without the investment, without the commitment, and without the engagement from the broader community." TVT's magnet school proposal ties well into this Chicago urban model.

Further information on Chicago Public Schools and the full text of the interview is available at <http://www.metroinvestmentreport.com/article/272>

Pearl District—Portland, Oregon

The Pearl District is designed to be a "high density urban residential neighborhood" with a "mix of multi-family housing, major office facilities, regional attractions, retail businesses, parks and open spaces," according to the Portland Development Commission. Formerly a blighted industrial area that was cut off from the rest of downtown Portland, the neighborhood has been transformed into the city's arts district. The district includes a mix of apartments (including affordable housing units), condominiums and townhouses. The Pearl is easily accessible to other parts of Portland by foot, bicycle, car, bus or by the Portland Streetcar.

Further information on the Pearl District is available at:

- <http://www.pdc.us/ura/river.asp>
- <http://www.shopthepearl.com/>

Public Gardens and Green Spaces

The benefits of public gardens, P-patches and green spaces are well documented. The benefits include better community connection, higher land values and improved environmental quality. The study area has a few publicly owned spaces that could be used to create public green space and provide such benefits to the residents. The City Department of Transportation yard, the Seattle Housing building and, with great expense, the substation are a few of the locations that the city already owns. A public green space and community garden can provide

hard (monetary) and soft (social, non-monetary) values. Several studies show the economic benefit to surrounding properties and that public green spaces spur investment¹³. In addition, a public park will help relocate some existing uses that will be displaced by the development of the Gates Foundation campus across Broad Street.

Portland, Oregon has successfully inserted pocket urban parks onto city-owned land to create healthy green meeting spaces. The Portland Urban Parks program utilized the Lila Wallace-Reader's Digest Fund to develop parks in urban areas and support neighborhood revitalization.



Photo: www.travelportland.com

Several parks have been purchased and built through public-private partnerships and the help of several grants. The parks are built based on community input and matched with community needs. City Repair (<http://www.cityrepair.org/>), another Portland non-profit, aids local neighborhoods in creating public spaces.

Cabbagetown, Atlanta

Cabbagetown in Atlanta is another success story¹⁴. Located in a nineteenth century cotton mill complex, the Grant School closed its doors in 1976. The school occupied 3.5 acres and was demolished in the 1990s leaving a vacant lot. The Cabbagetown Neighborhood Improvement Association (CNIA) worked with neighborhood residents and the city's parks and development department to acquire the property for use as a park. The groundbreaking occurred in April of 2005; the park is already increasing land values and adding vibrancy to an otherwise struggling community.

The key to the success of these spaces may well be the residents. Creating a reason for residents to band together has given these neighborhoods an identity and sense of place. While the Triangle does not currently have many residents, a public space can still be a gathering space. The addition of a P-patch will give future residents somewhere to congregate and make communal use of land in an



Trust for Public Land, Parks for People, Los Angeles.

http://www.tpl.org/tier3_cdl.cfm?content_item_id=15115&folder_id=2627



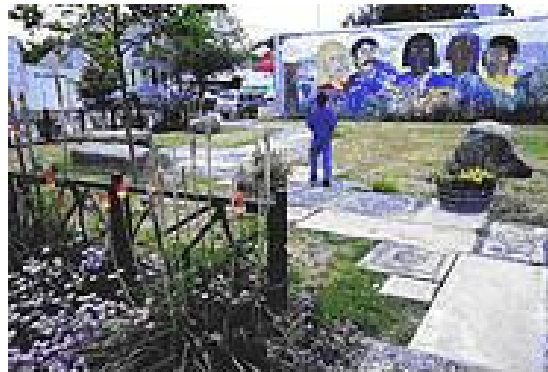
otherwise commercially-dominated area.

Description & Implementation of Key Components

Housing

Of the ten full blocks in TVT, six will be primarily residential or residential mixed-use. TVT will have a residential feel will be complemented by its close proximity to planned housing developments across Aurora Avenue North in South Lake Union. The highest housing densities in TVT will be located near the Monorail stop and along the Thomas Street corridor; other parts of TVT will include townhomes to provide for a diversified housing mix and a range of housing types to fit a variety of preferences. The entire area has a capacity for approximately 2,400 units, assuming an average unit size of 1000 square feet¹⁵.

Moving east, housing will be developed at a medium density (60-70 units per acre), providing a fluid transition to South Lake Union. Limiting structure height to five or six stories will provide human-scaled housing, while creating a different identity than other neighborhoods. South Lake Union will develop into large-scaled housing, Queen Anne has a mix of large and medium multi-family housing and Belltown has tall skyscraper



Mural at King's Corner, Portland

condo complexes. TVT will have intimate multifamily complexes, focused on creating a unique housing atmosphere, a complement to the adjacent open space. The area should also encourage or require retail service uses in ground floors, especially along the already-identified pedestrian corridors of Thomas and Broad Streets. The human-scaled village can also include wider setbacks or larger sidewalks, which will be especially important along Broad Street, where sidewalk cafes will create a promenade for pedestrians and slow traffic.

TVT will be designed such that residents can play a part in developing a community identity and can choose from different types of housing as their lifestyle needs change. The housing mix will also target people with different incomes.

Apartments

Rental units will be included on the upper-floors of mixed-use buildings; the highest density housing will be around the Monorail stop.

Affordable Condominiums

Ownership helps build stability; affordable ownership opportunities can be difficult to find in Seattle and targeting affordable condominiums will help address this market segment.



Dupont Circle townhomes (Washington, DC) Source: <http://www.kestan.com/>

Townhomes

Larger townhomes will diversify the urban streetlife.

Senior Housing

Transit-friendly urban neighborhoods serve those aged 55 and over, and TVT will include a mix of housing for active seniors.

Affordable Housing

Housing prices in Seattle are on the rise and it is essential that TVT includes adequate affordable housing in each of the above housing types. The neighborhood's goals for affordable housing will break down into the categories on the following page.

Targeted Income, in Percent of Seattle Median Family Income (MFI) ¹⁶	Percentage of Families in the Income Category According to the 2000 Census	Percentage of Units Provided in TVT
0-24%	7.6%	5%
24-56	16.5	15
26-80	15.9	17
80-120	22.2	33
> 120	39.5	30

In determining the housing goals for the TVT, we used the Comprehensive Plan goals of 20% of new units shall be affordable to families who earn less than 50% of the median income and 17% for those in the 51-80% MFI range. These goals and the percentage of families actually within each income range were used to determine the goals for housing within the TVT. Seattle's Comprehensive Plan lists very low income as 50% or less of the median income (median family income used for all calculations in this section) while low income is 80% or less. The housing goals in the TVT will serve approximately 24% of the population for housing, an important fact for demonstrating need for housing in this income range. In a time when 30.6% of Seattle's residents pay 35% or more of their income on housing costs, Seattle has an opportunity to address this growing need¹⁷.

Implementation of Housing

Combine federal, state and local programs that provide incentives for affordable housing development. City of Seattle incentives may include earmarked monies from the Multifamily Property Tax Exemption Program, Rental Preservation and Production Program, and Neighborhood Housing Opportunity Programs.

There are several non-profits that specialize in working with families in some of the income ranges. Capitol Hill Housing Improvement Program (CHHIP) works with families in the 30-100% MFI range while Housing Resources Group (HRG)

and the Seattle Housing Authority (SHA) work with those families with less than 80% of the median income. Partnering with these non-profits and other lenders such as Community Home Ownership Center (CHOC) will help TVT become an area with a mix of housing prices and types, leading the north end of Seattle in developing a housing-intensive locale.

Connectivity

TVT is designed to be easily accessible by multiple modes of transportation. To increase connectivity of the area, the preferred scenario includes the elimination of Broad Street and the re-integration of the grid network, tunneling Aurora underground along TVT's edge, and significant streetscape improvements to Denny Way. As previously noted, this will require significant capital investments. Should this not be possible due to funding constraints, an achievable accessibility plan for the neighborhood must still be implemented. This plan emphasizes connections with Seattle Center, Uptown Queen Anne, South Lake Union, and the Downtown Urban Center.

Pedestrian

The key pedestrian connections will be designed to accommodate children, the elderly, and the disabled. In addition to generous sidewalk space and a vibrant streetscape, it is important that a wayfinding system be included—particularly as many people will be using TVT as a link between surrounding attractions. In the event that Aurora is not tunneled, a bridge at Thomas Street can help connect TVT and South Lake Union.

The Bridge of Glass in Tacoma (photo at left) is an excellent example of a creative and aesthetically pleasing pedestrian solution.



Bridge of Glass, Tacoma.
Source: <http://www.chibuly.com/>

Bicycle

TVT will be a bicycle-friendly neighborhood. In addition to brightly colored bicycle lanes, similar to those in Vancouver BC, and bicycle-friendly signage, there will be an emphasis on connections to Seattle's Bay to Lake Trail, as outlined in the City's Blue Ring strategy. This trail, proposed along the current alignment of Broad Street, presents an opportunity to connect TVT with the rest of the Center City by bicycle.



Georgia Street, Vancouver BC.

Source: <http://www.capitalbikeandwalk.org/>

Public Transit

Public transportation, both current and proposed, will allow for easy access from TVT to the rest of the Seattle metropolitan area. The Seattle Monorail Project Greenline includes a stop at 5th Avenue North between John and Broad Streets. The Greenline connects West Seattle and Ballard through the downtown area. Additionally, South Lake Union includes a proposed streetcar and Sound Transit's Link light rail system will be used in the current downtown bus tunnel; both the streetcar and light rail are close to TVT. Additionally, it is important to note that while TVT is close to bus stop in Belltown and Seattle Center, the area will need more regular, convenient Metro bus service as it develops.

Automobile

Currently, the Triangle has many surface parking lots. In the TVT proposal, all of the parking in the area is either underground or structured. While the area will not be car-free, the automobile will become a second class form of transit as other modes are given priority. The area's parking will serve a mix of residents, customers, and Seattle Center visitors. It is important that parking in the area be coordinated with the Seattle Center, to ensure that it is adequate during events and that the loss of parking is spread through the area. It may be possible to reduce parking requirements by zoning code changes or market pricing, helping reduce needed supply. The City will maintain metered, on-street parking on most of the streets and several spaces will be reserved for FlexCar or other car-sharing programs.

Streetscapes

It is important that the streetscapes creatively reflect the vision for the area, in order to tie together these modes of transportation, including streets, sidewalks, and improvements that add to the feeling of community. Little touches like brick pavers, the handprints of school children in the sidewalks, comfortable street furniture, and public art created by university students will help give TVT a unique, comfortable feel.



Concert Square Mixed Use, Liverpool, England Urbansplash.co.uk

Services and Community Amenities

Magnet Public Technology Elementary School

The neighborhood will include a magnet public technology elementary school, with a pre-K-5 enrollment of about 300 students. The school could be planned with a public/private partnership model, including funding from Seattle Public Schools, foundations, and in-kind donations (including volunteer time) from SLU technology companies. While the school would draw students citywide, it would be well placed to make TVT desirable for education-driven technology workers. Because the school hours are only 8am-3pm, the facility would be used for programs, such as a science-based Boys and Girls Club and neighborhood association meetings, outside of school hours.

Central Garden or Green Space

A key feature in this alternative, a small central open space area, will connect the TVT with the rest of the city as detailed in the Blue Ring Report,¹⁸ while giving the area its own focus—a heart for the residents. The open space will consist of a combination of passive or active recreation. Passive recreation could simply be an open green space, like the nearby Denny Park, allowing for people to relax in the park or use the open space for other recreational purposes. Denny Park may not be a successful open space as of yet, but has amazing potential being so close

to the city center and newly-created housing. Alternatively, the space can contain active recreational activities, such as basketball and community gardening.

Developing a park or garden will give the neighborhood an identity of its own, giving a focal point to the residential community.

Placing the park in an area visible to the future Bay to Lake trail will connect the area to the rest of



Model of New Islington Community Manchester, England: UrbanSplash.co.uk

Seattle, in essence making a string of public spaces along the walkable trail. Lastly, creating a park will develop a use suitable for healthy communities and healthy lifestyles, emphasizing the importance of urban uses that promote active lifestyles and community-oriented spaces.

Alternative Evaluation

Housing

Pros

- Emphasizes unity of affordable housing and market rate units.
- Focuses on incentives that create a mix of housing types for every income level.
- Aims to develop higher density housing around the Monorail station with a medium density interior.

Con

- Does not develop TVT to the maximum density potential under the current zoning.

Economic Development

Pros

- Supportive of City of Seattle's economic development goals by housing the workforce of the Seattle area.
- Population increase will create a need for services and jobs in the downtown/SLU area.

Cons

- Plan does not create many jobs created aside from short-term construction and long-term service/retail uses.

Urban Village

Pros

- Creates a strong mixed use neighborhood, consistent with City's Comprehensive Plan.
- Supports the Urban Village ideal by creating a neighborhood with amenities for residents and adjacent neighborhoods.
- City investment in parks, streetscapes and affordable housing will enhance the community identity.
- City housing incentives will spur other local investment in housing and services.
- Neighborhood plan encourages infill development.

Cons

- None

Land Use and Implementation

Pros

- Housing goals and policies of city are fully realized.
- Complements current and proposed uses in South Lake Union and Lower Queen Anne.
- Zoning changes not required to implement.

Cons

- May require large city investment for affordable housing incentives.
- Park or open space will require city investment.

Transportation

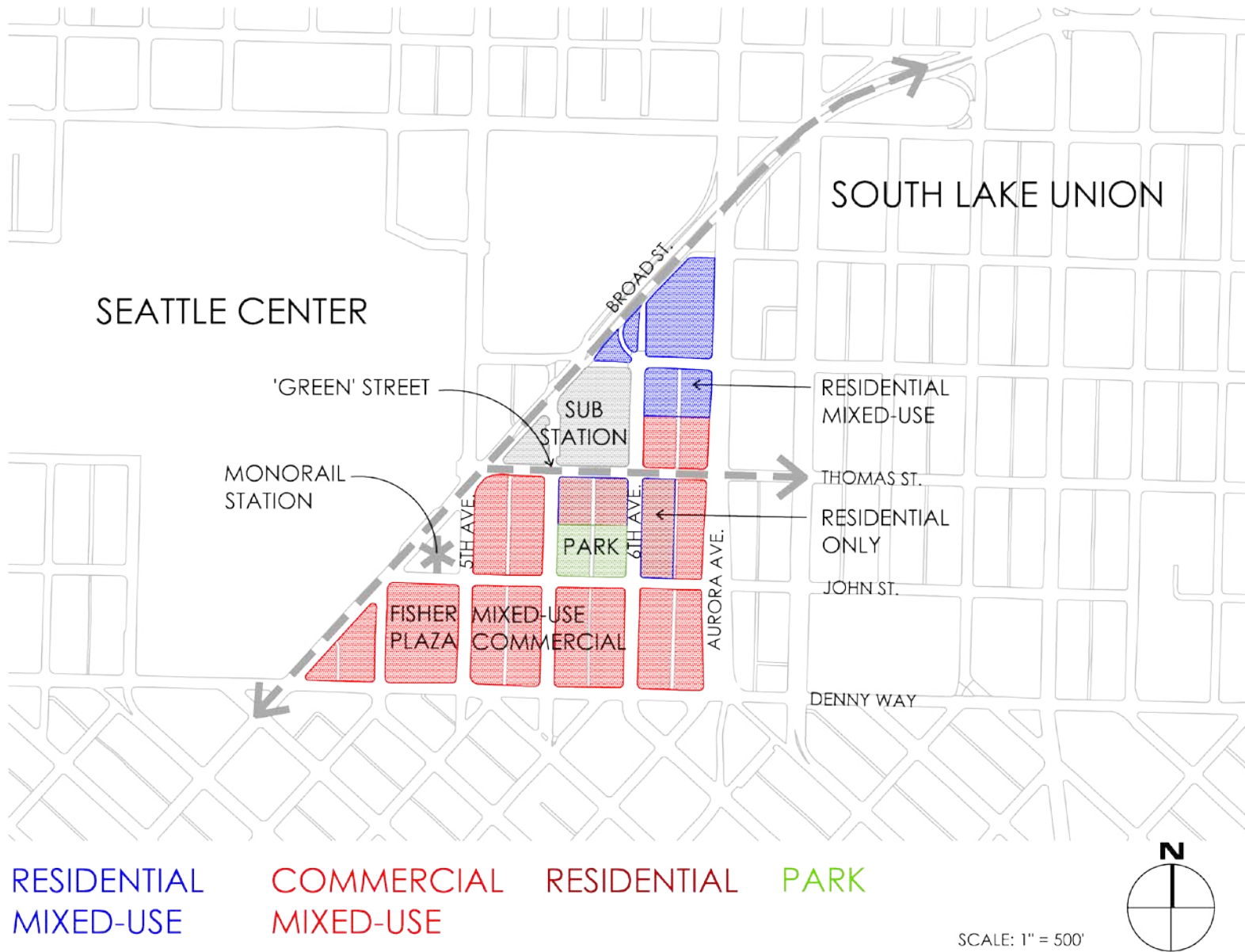
Pros

- Housing density supports mass transit use, including Metro and Monorail.
- Plan includes multi-modal transportation elements.
- Low net loss of parking due to parking requirements for housing development.

Cons

- May increase automobile traffic on local streets.
- Pedestrian-friendly streetscapes may challenge auto access to some business and retail uses.

ALTERNATIVE B: THE VILLAGE ON THE TRIANGLE



Alternative C: TriBiz

Goals

- Connect Seattle Center and South Lake Union with non-motorized, pedestrian-friendly streets and trails
- Include a mix of entertainment for families and adults by providing incentives for restaurants and entertainment venues
- Attract tourists and residents by providing hotels and unique retail uses
- Support the growing South Lake Union population by providing housing and childcare

Vision Statement

The Triangle is in an ideal location to support both South Lake Union (SLU) and the Seattle Center, creating a ripple effect on the economy for the entire city. Mixed-use buildings are prevalent and residents enjoy a convenient lifestyle. Visitors and residents often walk from South Lake Union waterfront, stopping in the area for dinner and heading to the Seattle Center for a play at the Seattle Repertory Theater, a Seattle Storm game, or a concert.

Principle Features of Alternative

- Walkable streets emphasizing non-motorized uses
- Childcare and business support
- Business friendly environment
- High-density affordable housing for local employees

Built for the 1962 World's Fair, the Seattle Center is an iconic attraction for families and tourists around the Seattle-Tacoma metro region. While the Triangle area to the east has traditionally supported the Seattle Center with parking and some hotel rooms, this alternative will connect these twelve blocks into a transition and support area between Seattle Center and South Lake Union.

Encouraging the development of hotels and entertainment venues, the Triangle redevelopment will give a new life to the west connection of the Seattle Center while being a gateway to the developing South Lake Union Park and its future residents to the east.

An article in the *Seattle Post-Intelligencer* suggests that the Seattle Center is in need of investment. Whether this comes from the City or private investors, the Center needs assistance in order to maintain its economic viability.

The Seattle Center has a \$34 million annual budget. About 75 percent of its money comes from the Center itself, including events, rents, fees, concessions, advertising and parking revenue. The remaining 25 percent -- about \$8.6 million -- comes out of the city's general fund. In 2006, the city will probably have to kick in an additional \$1.5 million from the general fund to keep the bills paid. That is, Seattle Center is nearly \$10 million in debt and sinking deeper. Therefore, a new plan to attract more people is needed.¹⁹

In developing an alternative, important factors such as the economic conditions of adjacent neighborhoods and the physical characteristics of the entire area should be recognized. The Triangle is a major gateway to the Seattle Center from downtown and Capitol Hill and has a natural visual connection to the Seattle Center for people driving from I-5 along Mercer Street towards downtown and the waterfront. Surrounding neighborhoods have a unique connection to the center: Lower Queen Anne currently provides some support to the Seattle Center and is a bustling area with or without events while South Lake Union is on the verge of a population eruption, with several developments already underway. While encouraging the development of a unique identity for the Triangle, this alternative aims to create an area that will be an integral part of the "Blue Ring" as defined in the 2002 Draft City report.²⁰ It will connect to the rest of the city by providing complementary uses for the near-by theater district and a major stopping point on the way to downtown.

In addition to the Bay to Lake Trail, developing additional pedestrian pathways contributes to the economic viability of this area and the Seattle Center. A network of pedestrian linkages allows visitors to roam around the Triangle to and from the monorail station, accommodating many commuters, tourists and residents en route to entertainment and cultural events. The entire area has a capacity for approximately 2,200 units, assuming an average unit size of 750 square feet²¹.

Case Studies

Pedestrian Pathways in Venice, Florida

The city of Venice, Florida as in many cities, has used design features at intersections to help reduce traffic speeds, making pedestrians feel more comfortable crossing the street. The curb extension and pavement treatment added sight indicators that slow down traffic. These types of treatments put the pedestrian and bicyclist first, making the vehicles slow to accommodate other modes of travel. Other types of roadway treatments include chokers, crossing islands, raised pavement, street trees, and public art.



Curb extension in Venice, Florida

Source: Pedestrian Friendly Case Studies (Appendix A)

<http://www.walkinginfo.org/pdf/peduserguide/appendices.pdf>

South San Francisco Biotech

In South San Francisco, residential neighborhoods are not proximate to the area east of Highway 101, which contains a concentration of biotechnology jobs due to the trickle down effect of the area serving as the incubator for the original biotechnology company, Genen-tech. At the same time, South San Francisco's historic downtown area, less than three miles to the west of the biotech industrial area, suffers from disinvestment and lack of shoppers. In an effort to revitalize downtown South San Francisco, the City commissioned a local firm to conduct an in-depth analysis of the potential for market-rate new housing in the downtown. The analysis included a survey of East of 101 employees, including numerous biotech workers.²² As indicated in the excerpt from that study, interest in proximate housing was strong among survey respondents, provided that amenities found in more suburban single family neighborhoods could be replicated. The City is proceeding with planning for the first downtown market-rate project, which will be designed as for-sale lofts along downtown's commercial "Main Street" in a range of price points.

Childcare provisions in the Bay Area

Another aspect of employee quality of life that has captured the attention of biotech park developers is childcare. Accessible high-quality childcare for workers was

recognized early by Genen-tech, which has become well known for its progressive employee benefits packages. Second Generation, a company-subsidized child care center for children six weeks to six years old, opened in January 1989, as one of the country's first company-sponsored childcare centers. Located about 1.5 miles from Genen-tech's headquarters, the facility occupies approximately 19,000 square feet and can care for 244 children year round, with 30 extra slots available for winter and spring breaks. Utilization of the center fluctuates throughout the year between 80 and 100 percent. The 72 slots available for infant/toddler care are in high demand and getting one requires spending a significant period of time on the waiting list.

The city of San Francisco requires payment of an in-lieu childcare fee or provision of on-site facilities for major office developers. In recognition of the importance of this employee amenity, Catellus, the developers of Mission Bay in San Francisco, commissioned a child care strategy study in 2001 to explore the most cost-effective way to fulfill this childcare provision. In order to both meet its own goals and the City's requirements, Catellus proposed to pay the in-lieu fee, develop on-site childcare centers, and create a childcare coordination program for its commercial and residential tenants. In addition, the UCSF campus, at the heart of Mission Bay, will contain an employee childcare center²³.

Description & Implementation of Key Components

Pedestrian-oriented connections

In order to fully develop entertainment uses, the area will need to attract foot traffic and be visible to passing vehicles. The Seattle Center is a walkable complex, so the support for it should be accessible on foot. Crossing Broad Street is the most important focus and should be characterized by streetscape treatments and a slower speed limit. Chokers at the corners, patterned pavement, raised pedestrian crosswalks or other treatments can help slow traffic and make pedestrians feel comfortable to cross the busy street. Connections should also exist to the east over Aurora Avenue. At minimum, one grade separated pedestrian crossing of Aurora should be provided, whether a pedestrian bridge or a tunnel, to connect pedestrians to South Lake Union. To maximize the connections to that area, Aurora should ideally be capped. The lid could become a green space or park, like the Mercer Island Lid over I-90. Other components to promote a pedestrian friendly atmosphere include:

- A high concentration of retail and business uses within an easy walk of the monorail station and bus stops. Encourage restaurants, museums, and

major hotels in this area.

- Develop a network of signage to facilitate ease of use for pedestrians and tourists. This signage would enhance the area's visibility and identity, ultimately increasing its popularity, attracting more people to downtown Seattle, and ultimately drawing more businesses to the Triangle.

Implementation for Pedestrian Connections

Many pedestrian-oriented features are easy to install and widely used in Seattle. Differing pavement patterns and striping are some of the easiest ways to slow traffic and create an interesting streetscape. Since the city is already creating a pedestrian trail along Broad Street, such pedestrian crossings should naturally be included. Other treatments, like continuing the landscaped islands that occur in the northern end of Broad toward the downtown, will be more expensive. Certain treatments will be more appropriate than others. Easy connections, especially those for pedestrians, will enliven the area and allow for easy access to the Seattle Center. While it is unknown whether a total rehabilitation of Broad Street will be possible due to funding restrictions, other methods may be utilized to create a more pedestrian-friendly street environment at a lower cost.

The area between SLU and Seattle Center will need to function as hub for the activity between Seattle Center and SLU. For this to happen, it is essential that Aurora Avenue North be moved underground in this area. As major features for tourist-oriented development, other factors such as multi-modal connectivity, hotels, restaurants, bars and souvenir shops should be encouraged in the area.

South Lake Union Support

The South Lake Union plans project 8,000 residential units by 2020.²⁴ The demand for housing in Seattle is significant and South Lake Union has capacity to accommodate much of this demand. Additionally, biotechnology workers tend to be young, transitory, and range in family sizes. This all points to requiring a mix of housing around research areas. As such, childcare facilities will be needed.

The City's plan for SLU highlights the life sciences industry and SLU's ability to embrace it and help it thrive in Seattle. The thousands of housing units and jobs expected would be in large part the result of investment in the life sciences. Indeed, the SLU neighborhood has several advantages with respect to the life sciences industry: it is near the world-renowned Fred Hutchinson Cancer Research Center, the University of Washington, a national leader in medical research, it is located in the heart of a city known for its high quality of life and most importantly, hundreds of life science jobs already exist in SLU.

Implementation for the Support of SLU

Housing and childcare facilities are a major feature needed to support SLU. Several ideas arise in implementing the "support" function:

- Encourage office and retail uses supportive of life science industry and research, such as legal services, to locate near Aurora
- Develop multi-family housing and apartments with commercial facilities in the first floor.
- Sell or lease City of Seattle-owned land to promote economic development and meet public policy objectives such as the creation of affordable housing.
- Create affordable housing to alleviate the impacts of market rate housing on the supply and cost of housing for low and moderate-income households. Using public land and City funding sources such as the Neighborhood Housing Trust, while relaxing regulations in place for market rate development, and relief from regulation, housing can be made affordable to all incomes, ages, and households.
- Encourage or require housing with underground parking, especially for commercial uses
- To encourage childcare facilities, provide tax credits for private contributions and in-kind donations to enterprise zone projects that provide childcare.
- Allocate childcare facilities to the first floor of multi-family housing. Good quality childcare facilities can make a crucial contribution to the development of a child's potential, as well as opening up labor market opportunities for parents, particularly biotech industry.
- Its proximity to South Lake Union will help drive the area to become a neighborhood for the future. Technology infrastructure for this neighborhood will include community-wide affordable broadband and a wireless access.

Alternative Evaluation

Housing

Pros

- Creation of mixed-use developments
- Encouraging city investment for affordable housing
- Attracting families to the area by providing services for all sizes of household

Cons

- Does not focus on strategies to increase the housing stock, but rather supports the growth in South Lake Union.

Economic Development

Pros

- Encourages retail and tourist uses
- Supports the Seattle Center's cultural resources through development of complimentary businesses such as restaurants and shops. Creates a business-friendly climate by providing foot-traffic and visibility.
- Focuses on labor-intensive support services

Urban Village

Pros

- Supports mixed use developments
- Creates an identity through business uses

Cons

- The identity the area would develop, more so than with the other alternatives, would be based on the businesses that locate in the area, and may not be unique.

Land Use and Implementation

Pros

- Zoning would allow and support the above strategies, little or no code amendments needed to implement business support
- Factors are well-supported in the community: need for child care facilities and a business-friendly environment is not a risky venture with the proximity to downtown.
- Does not compete with Seattle Center or South Lake Union projects

Cons

- Short-term success is dependent on the demand, may not provide a sustainable model without a big investment by the city in housing and/or SLU support

Transportation

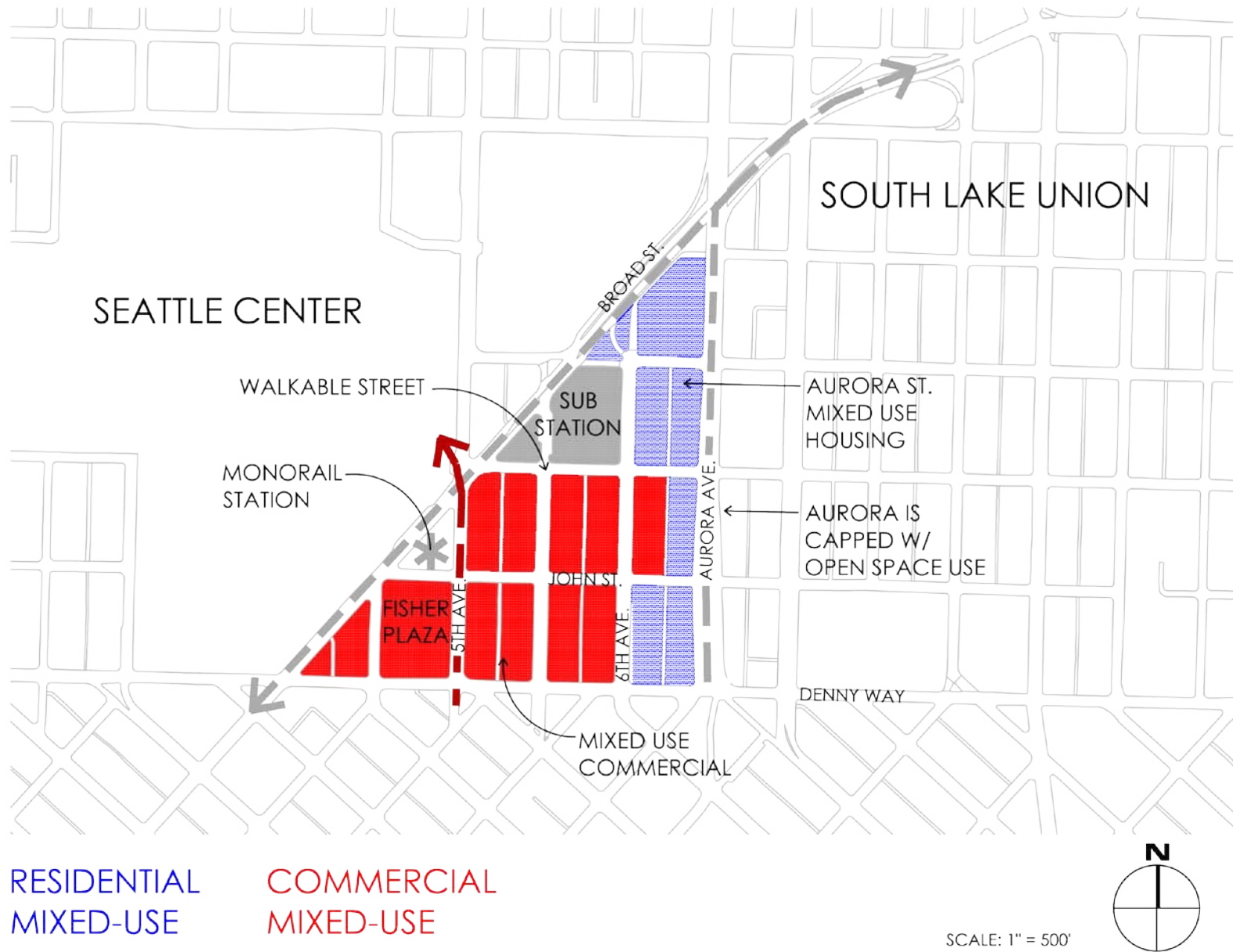
Pros

- Supports the monorail and existing mass-transit connections
- Encourages walking and non-motorized traffic

Cons

- Relies on the monorail to provide the business support
- Much stronger alternative if Aurora is capped, but this is an expensive venture.

ALTERNATIVE C: TRI BIZ



Analysis and Recommendations

The attached matrix presents the evaluation results for each of the three alternatives strategies. The evaluation focuses on five categories: housing, economic development, urban villages, land use and implementation, and transportation. Pros and cons are identified in each category.

In reality, the final plan for the area will likely differ from the alternatives developed here. In the process of developing and evaluating the three alternatives, four common elements were identified: connectivity, housing, accessibility and mixed use/services. These priority elements should be incorporated into the final plan for the area.

In order to implement the four priority elements, we recommend that the City take the following action steps:

- Work with community groups and other stakeholders to determine which Urban Center should annex the Triangle
- Develop station overlay for Broad Street station to ensure new mixed use development in this area is consistent with the form and function of the transit station
- Identify and pursue opportunities to increase multi-modal connectivity across Aurora Avenue
- Cultivate partnerships with housing developers and provide financial incentives to encourage housing development in the Triangle

Summary of Alternative Evaluations

Table 1 represents a summary build-out analysis for each alternative. Percentages of residential to commercial space were estimated from site plans using gross land base of 35 acres. The following assumptions were used in estimating the numbers; see Appendix B for more a more detailed analysis.

- Average household size: 2.3 persons
- Residential efficiency factor: 0.6. This is the multiplier for total residential area to account for open space and internal area utility functions
- Commercial efficiency factor: 0.7. This is the multiplier for total commercial area used to account for open space and internal utility functions.
- Constant tax and utility rates
- Average of 3.29 employees per 1000 square feet of mixed-use commercial space

Table 1. Summary Build-out Analysis

	Alternative A Transit Supportive Community	Alternative B The Village at the Triangle	Alternative C Business Triangle	Existing
Population	6,200	5,600	5,000	10
Housing Units	2,700	2,400	2,200	10
Jobs	8,200	6000	13,700	--
Property Taxes Revenue for City	\$14.4 million	\$8.8 million	\$18.7 million	--
Open space	1 acre	2 acres	0 acres	--

Each alternative has a unique community profile and highlights a different set of development strategies. The following table represents the assumptions used for each alternative in order to develop the build-out numbers.

Table 2. Alternative Assumptions

	Building Height	Residential Unit Size	Developable Area in Residential Use	Remaining Area in: Office, Commercial, Biotech Use
Alternative A	7 stories	900 sq. ft.	60%	45%, 50%, 5%
Alternative B	6 stories	1000 sq. ft.	70%	50%, 50%, 0%
Alternative C	8 stories	750 sq. ft.	35%	50%, 50%, 0%

Table 3. Evaluation Matrix

	Alternative A Transit Supportive Community	Alternative B The Village at the Triangle	Alternative C Business Triangle	No Action Alternative
Housing	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Addresses parking requirements - Develops housing in concert with transit improvements - Encourages residential uses in mixed use development <p><i>Cons</i></p> <ul style="list-style-type: none"> - Includes no specific methods for attaining affordability - Does not specifically address housing diversity 	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Emphasizes unity of affordable housing and market rate units. - Focuses on incentives that create a mix of housing types for every income level. - Aims to develop higher density housing around the Monorail station with a medium density interior. <p><i>Con</i></p> <ul style="list-style-type: none"> - Does not develop TVT to the maximum density potential under the current zoning. 	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Creating mixed-use developments with a supply of housing - Encouraging city investment for affordable housing - Encouraging families by providing services for all sizes of household <p><i>Cons</i></p> <ul style="list-style-type: none"> - Does not focus on strategies to increase the housing stock, but rather support the sure growth in South Lake Union. 	<p><i>Pros</i></p> <ul style="list-style-type: none"> - No displacement of existing Triangle residents. - Seattle Mixed-Use Zoning is supportive of housing development in the neighborhood - Lower land prices may lead to some affordable housing. <p><i>Cons</i></p> <ul style="list-style-type: none"> - New housing may be developed over a long time horizon. - Diversity of housing choices cannot be guaranteed. - Housing development will not include public/private partnerships.

Table 3. Evaluation Matrix				
	Alternative A Transit Supportive Community	Alternative B The Village at the Triangle	Alternative C Business Triangle	No Action Alternative
Economic Development	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Maintains commercial development pattern along Aurora Avenue North and Denny Way - Supports job growth within downtown urban area <p><i>Cons</i></p> <ul style="list-style-type: none"> - Job growth not focused on a particular sector - Retail jobs may be below living wage 	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Supportive of City of Seattle's economic development goals by housing the workforce of the Seattle area. - Population increase will create a need for services and jobs in the downtown/SLU area. <p><i>Con</i></p> <ul style="list-style-type: none"> - Plan does not create many jobs created aside from short-term construction and long-term service/retail uses. 	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Encourages retail and tourist uses - Supports the Seattle Center's cultural resources through development of complementary businesses such as restaurants and shops. Creates a business-friendly climate by providing foot-traffic and visibility. - Focuses on labor-heavy support services <p><i>Cons</i></p> <ul style="list-style-type: none"> - None 	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Long-term, Central City proximity will lead to a ripple-effect of economic growth from downtown and surrounding neighborhoods. - Property values will increase as the areas surrounding the Triangle become built-out and more desirable. <p><i>Cons</i></p> <ul style="list-style-type: none"> - Market-driven uses may mean more low wage jobs, such as those in service stations and chain restaurants. - Isolation of the Triangle will keep automobile uses prevalent.

Table 3. Evaluation Matrix

	Alternative A Transit Supportive Community	Alternative B The Village at the Triangle	Alternative C Business Triangle	No Action Alternative
Urban Villages	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Compact mixed-use development near transit - Encourages infill development - Helps to foster new community identity <p><i>Cons</i></p> <ul style="list-style-type: none"> - No significant concentration of open space - No specific recreational facilities 	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Creates a strong mixed use neighborhood, consistent with City's Comprehensive Plan. - Supports the Urban Village ideal by creating a neighborhood with amenities for residents and adjacent neighborhoods. - City investment in parks, streetscapes and affordable housing will enhance the community identity. - City housing incentives will spur other local investment in housing and services. - Neighborhood plan encourages infill development. <p><i>Cons</i></p> <p>None</p>	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Supports mixed use developments - Creates an identity through business uses <p><i>Cons</i></p> <ul style="list-style-type: none"> - This area would develop an identity based on the business that locate in the area, and may not be unique. 	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Area may develop around Monorail station in the Triangle. - Zoning may encourage mixed-use development in the Triangle. <p><i>Cons</i></p> <ul style="list-style-type: none"> - No formal enhancement of community identity. - No public investment in streetscapes, parks, and other public facilities in the Triangle.

Table 3. Evaluation Matrix				
	Alternative A Transit Supportive Community	Alternative B The Village at the Triangle	Alternative C Business Triangle	No Action Alternative
Land Use and Implementation	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Implementation feasible under current zoning - Consistent with city goals and plans <p><i>Cons</i></p> <ul style="list-style-type: none"> - May require land assemblage - Includes potentially expensive capital projects 	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Housing goals and policies of city are fully realized. - Complements current and proposed uses in South Lake Union and Lower Queen Anne. - Zoning changes not required to implement. <p><i>Cons</i></p> <ul style="list-style-type: none"> - May require large city investment for affordable housing incentives. - Park or open space will require city investment. 	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Zoning would allow and support the above strategies, little or no code amendments needed to implement business support - Factors are well-supported in the community: need for child care facilities and a business-friendly environment is not a risky venture with the proximity to downtown. - Does not compete with Seattle Center or South Lake Union projects <p><i>Cons</i></p> <ul style="list-style-type: none"> - Short-term success is dependent on the demand, may not provide a sustainable model without a big investment 	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Implementation feasible under current zoning and regulations; minimal staff time required - Demand may drive increase in short-term investments, including unsustainable uses. - After South Lake Union is built-out, the Triangle will develop, creating a long-term solution. <p><i>Cons</i></p> <ul style="list-style-type: none"> - Lack of planning will lead the Triangle to remain a gap in reaching the City's Comprehensive Plan goals. - Sustainable long-term uses will not be encouraged through a neighborhood plan.

Table 3. Evaluation Matrix

	Alternative A Transit Supportive Community	Alternative B The Village at the Triangle	Alternative C Business Triangle	No Action Alternative
Transportation	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Incorporates programs to encourage transit, HOV and non-motorized modes - Provides access to three modes of public transit (bus, Monorail and streetcar) - Incorporates parking management - Improves non-motorized trail network <p><i>Cons</i></p> <ul style="list-style-type: none"> - Relies on development of Broad Street Station - Reduces automobile flow capacity 	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Housing density supports mass transit use, including Metro and Monorail. - Plan includes multi-modal transportation elements. - Low net loss of parking due to parking requirements for housing development. <p><i>Cons</i></p> <ul style="list-style-type: none"> - May increase automobile traffic on local streets. - Pedestrian-friendly streetscapes may challenge auto access to some business and retail uses. 	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Supports the monorail and existing mass-transit connections - Encourages walking and non-motorized traffic <p><i>Cons</i></p> <ul style="list-style-type: none"> - Relies on the monorail to provide the business support - Much stronger alternative if Aurora is capped, but this is an expensive venture. 	<p><i>Pros</i></p> <ul style="list-style-type: none"> - Monorail station will add additional mode of transportation in the Triangle. - Size of the Triangle supports surrounding public transportation options. - Development will reflect availability of transportation. <p><i>Cons</i></p> <ul style="list-style-type: none"> - Connectivity to surrounding areas by walking and bicycling not supported by current infrastructure. - The Triangle will remain an automobile focused area because of surface parking; may not meet City's parking management goals.

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Appendix A

Triangle Existing Conditions

History

The Triangle has functioned less as a destination and more as a corridor throughout much of its history. Even so, much has changed in the area since its early days.

Early in Seattle's history, a path extended from the southwest end of Lake Union to Elliot Bay. Today that path is Broad Street, but in 1888, it was Lake Avenue, and even then it broke the street grid and formed one edge of what we call "the Triangle". Curiously, one block of the street remained incomplete well into the 20th century. In the late 19th century, homes dotted the Triangle on 2400 square foot lots). Many lots were vacant, and few services were available in the area. Already a church occupied the corner of Thomas and Birch (now Thomas Street and 6th Avenue North). Although the name changed throughout the years, the church remained for decades. South of Depot Street, (now Denny Way), a hill separated the Triangle, along with all parts of Uptown, from the city center. The Denny Regrade, now the site of Belltown, was not completed until well into the 20th century.

Just five years later, a variety of services began to appear along Depot Street (Denny Way), including a drugstore and a bakery. Unfortunately for the Seattle Cleaning and Dyeing Works, its location was taken-over for the completion of Broad Street. Between 1888 and 1893, additional dwellings were constructed, with some buildings containing multiple dwellings.

More substantial changes occurred between 1893 and 1917. By 1917, Lake Avenue had been renamed Broad Street, Depot Street had become Denny Way, while Farm had become 7th Avenue North. Broad Street in 1917 did not effectively sever the area from Uptown. Today, the Triangle is contiguous only with the Seattle Center portion of Uptown, but before the Seattle Center was built, The Triangle was a residential area more or less contiguous with the Uptown residential area. By 1917, services continued to cluster along Denny Way, including a laundry, auto repair shop, creamery, garage, and drug store. A few services also appeared along 7th Avenue North.

The nature of housing in the Triangle began to shift during the early 20th century. Multifamily dwellings proliferated throughout the area, although a significant single-family housing stock remained. In comparison to the western edge of the South Lake Union neighborhood at the same time, the Triangle resembled Uptown with respect to its housing density and land-use patterns.

Post-WWII Triangle land-use patterns differed dramatically from those of the early 20th century. Nearly all of the housing between Taylor and 6th Avenues was replaced or destroyed. By 1951, Seattle City Light had taken over a large parcel along Broad and 6th Avenue North that remains today as an electrical substation. A bowling alley appeared where several homes had been; today an under-21 club occupies the same site. An office complex that was then, and is still occupied by a labor union, replaced housing long Taylor Avenue North. Since 1951, the trend has continued, with only one multi-family dwelling remaining today.

Important infrastructure project significantly affected the Triangle in the mid-20th century. By 1932, Aurora Avenue North had become a high-speed road, but ended at Denny Way. That configuration is the principal reason why the Triangle is isolated from South Lake Union today. During the 1950s, Broad Street was sunk, effectively disconnecting the Triangle from Uptown. In 1962, the World's Fair came to Seattle. Many properties were acquired in the years leading-up to the event in order to create what today is the Seattle Center. Those properties are across Broad Street from the Triangle.

Although there are no officially designated historic structures within the Triangle, some businesses have called the area home for many years. Seattle's first radio station, KOMO, originally KTCL, moved its headquarters to the Triangle in 1948. For decades it occupied the same building until it built Fisher Plaza during the late 1990s. Today the plaza is a commercial anchor to the area.

In sum, the Triangle has transformed from a residential community in the late 19th century to a commercial and industrial district today. Although the change was gradual, it was unmistakable. Although throughout its history the Triangle and South Lake Union have been adjacent to each other, the two were distinct, in part because the railroad that moved goods from Lake Union to Elliott Bay did not pass through the Triangle. Later, their separateness was literally cemented by the expansion of Aurora Avenue North. As a result of its isolation, today the area receives little through traffic, consequently making it a quiet enclave to carry out business in the heart of Seattle.

Housing

Among the variety of uses within the Triangle, there are no single-family homes, and only one building of multifamily units. The Casa Del Rey on Thomas Street accounts for all ten housing units in the Triangle. At the time of the 2000 census, nine of the units were occupied. Of those, all were occupied by single adults. As

discussed in the History section, the area has gradually lost its housing stock while gaining new businesses.

Census data shows that the median gross rent in the Triangle’s census block (covering parts of Belltown, South Lake Union, and Uptown) was \$633 per month in 1999 dollars. A web search for rents at Casa del Rey yielded recent postings for studios ranging in price from \$545 to \$595 per month. This information should not be construed as representative, but it does provide two additional data points where little data exists.

The fact that there is little housing in the Triangle begs the question: is there opportunity for more? There are some vacant lots in area that currently provide opportunities for the homeless to live while raising few hackles. Abandoned and special use buildings (such as night clubs) generate little business traffic and thus are also satisfactory places for those with little other choice. Of course, vacant lots present an opportunity for new development, including new housing. Alternatives for vacant lot usage are described in the *Alternatives* section of this plan.

Social Demographics

Little data is available with regard to demographics because the area is so small and has so few residents. Census data by tract and block group tends to drown-out any significant trends in the Triangle area. Only select data is available at the block level; it is presented in the table below.

Census SF-1 data for applicable census blocks	
Total Households	11
Occupied	10
Vacant	1
Single-person	10
Renter-occupied	10
For rent	1
Over-18 head of household	10
Total Residents	11
White	6
African American	2
Other race	1
Hispanic	1
Two+ races	1
Male	9
Female	1
Median age	34.4

The Census Bureau does not gather socioeconomic data like income and educational attainment at the block group level. Since the Triangle area accounts for such a tiny fraction of the population surveyed for socioeconomic data, the results hold little meaning as applied to the Triangle.

Since few people call the area home, a logical group to consider is those who work in the Triangle. Seattle business license data shows that a wide variety of businesses are located in the Triangle. Some businesses employ large numbers of people, like Fisher Communications. Others employ few, like the several parking lots. There are more computer related businesses than any other business type, but upon walking through area, the most visible presence is that of the hotels. Since Seattle does not track the number of people employed in its business license data, it is difficult to say which kinds of businesses employ the most people, but it is clear that area employees vary widely in terms of job function and pay.

Land Use and Regulatory Context

The area bounded by Aurora, Broad Street and Denny Avenue constitutes approximately 12 blocks adjacent to the downtown area. It was not included in any neighborhood plan and has no goals or policies for the development in the Seattle Comprehensive plan. This section will identify existing land uses, generalizations about land ownership, the existing regulatory context, and a little information concerning urban design and major issues existing in and around the area. Lastly, a brief discussion of past research and planning done for this area is included.

The entire area was rezoned in April, 2005 from NC3-85, meaning Neighborhood Commercial 3, to SM, Seattle Mixed. The Seattle Municipal Code (SMC) outlines a height increase to a range: 40, 55, 65, 75, 85 and 125 feet with certain restrictions applied by city staff (SMC 23.34.128). Design review is required in this zone for structures that exceed SEPA thresholds (SMC 23.41.004)

Seattle Municipal Code 23.48 enumerates the permitted and non-permitted uses for the SM zone. All uses are permitted outright unless specifically listed as a prohibited use in 23.48.006 or conditional use in 23.48.008. A short list of prohibited use follows:

- High-impact uses
- Heavy manufacturing
- General manufacturing uses greater than 25,000 square feet in GFA
- Drive-in businesses
- Jails

- Adult movie houses
- Principal use surface parking
- Animal shelters
- Park N' Ride lots
- Conditional Uses as follows:
- Warehouse use

Several proposals are pending in the downtown area. The Mayor's proposal to eliminate parking is limited to the Capitol Hill neighborhood area. Parking for the Triangle is regulated in section 23.54.015. The proposed downtown height limit change does not affect this area directly, but the area across Denny Way is proposed for a height increase. The preferred alternative for neighboring height limits includes 240-foot height limit for commercial and 400 feet for residential and mixed use. Moving farther east, the limit goes down to 125 feet for retail and residential uses.

There are several trends that arise in a review of the current land ownership and uses. Underutilization of this area is prominent in the use of parking as a sole use. Currently, ten properties (103,000 square feet) are tied up in parking. This does not account for the additional properties that contain parking spaces as a part of their businesses. While parking is an issue during events at the Seattle Center, the lots most often sit empty during the day. A brief site visit revealed ample street parking (and many free spots) along with pay lots in the area.

Another major land use is the number of hotels. Currently, there are four hotels with the 12-block area. All four are can be considered "budget" hotels: Best Western, Best Value, Travelodge and the Vagabond Inn. Together, they comprise 117,021 square feet of land.

The next use is office space. Approximately 282,000 square feet in land are taken up with office space. In total, there are 44 parcels with 35 different landowners. The public sector (Seattle City Light, SDOT, and the Seattle Housing Authority) occupy 850,300 square feet. The three biggest landowners are:

- City Light (89,295)
- Fisher Communications (83,134)
- SDOT (73,407)

Summarizing the most prevalent design features, one notices the large amount of open space, including several vacant and parking lots. These open spaces are in highly visible locations and create a barren feel to the neighborhood. This is an opportunity and a current issue for the area as parking is a lucrative business,

especially since the parking services events at the Seattle Center. The City light utility is at an incredibly visible location along Broad Street and will face the planned Gates Foundation Building. This site is fenced off and contains neither noticeable design features nor accessibility for public use. Lastly, the Denny, Broad, Aurora edges make this area an island, not easily accessible by foot or car. Pedestrians must pass these major arterials to get to any other neighborhood. The neighborhood is isolated as a consequence.

Brief research uncovered few facts about proposed projects adjacent to this area. The Gates Foundation has purchased an area on Broad Street, across from this area. Preliminary information on the 12-acre site is that construction is scheduled for 2007, it will house approximately 200 employees and will contain a 1,100 space parking garage owned by the city. The city is dedicated to having internal circulation and connections to off-site roads and pedestrian amenities. The Gates Foundation has expressed an interest in building a LEED-silver certified building.

Previous research revealed several reports which mention this area as the "Bermuda Triangle." The most informative of these reports being the Blue Ring Report drafted by the City of Seattle in 2002. It identifies overall design goals for the city and has design features that cross the Triangle area. First and foremost, the Blue Ring aims to create open space connections thorough walkable trails and paths such as the Bay to Lake Trail. Other pedestrian connections specifically relating to this area include Harrison and Thomas Streets connecting South Lake Union and this area. These streets are designated green streets and city connectors to the Seattle Center. Another major connector will be in the 5th Avenue Corridor connecting downtown to Westlake Center.

Transportation and Connectivity

Automobile Paths

The Triangle is bound by three principal arterials, as designated in the Seattle Transportation Strategic Plan (TSP)²⁵: Broad Street, Denny Way and Aurora Avenue/Highway 99. Highway 99 is a main north-south route through the city, carrying 20 to 25 percent of the traffic traveling through downtown²⁶. Broad Street and Mercer Street are the only arterials that cross Aurora Avenue between the Battery Street Tunnel entrance at Denny Way and the Aurora Bridge to the north. Denny Way, one of the major crossing points over Interstate 5, is the primary connector between Capitol Hill and the three Urban Centers located to the west (Uptown Queen Anne, South Lake Union and Downtown). Aside from 5th Avenue North, a principal arterial, all roads within the Triangle are designated

access streets.

While the three above-mentioned arterials facilitate movement around the perimeter of the Triangle, they also impede movement into and out of the Triangle. The change in street grid orientation, along with the presence of lane separators make crossing Denny Way nearly impossible. Further exacerbating the problem is the fact left turns are not permitted along Denny. Likewise, passage over Broad Street is precluded along most of the northern boundary by lane separators and the grade change as Broad Street crosses under Aurora Avenue. Finally, no crossing points over or under Aurora currently exist within the Triangle.

The Triangle, then, is essentially a traffic vacuum, given that the majority of automobile traffic in the area is directed along its outer edges. The only through traffic in the Triangle is directed along 5th Avenue North. Otherwise, traffic within the Triangle is limited to vehicles destined for a specific location within the Triangle or in search of parking.

As discussed in the Land Use section, parking in the Triangle is abundant. Angled parking stalls are located along most of the interior streets. In addition, there are several pay lots in the area, and most businesses within the Triangle have dedicated surface parking.

Transit

The Triangle is presently served by Metro buses and the Monorail. Bus service is provided at six stops located within a ¼-mile radius of the Triangle. Bus service is described in detail in table below. As the figure shows, bus service to the Triangle is quite good, especially to downtown. All routes serving the Triangle offer weekend service.

Stop	Route	To	From	Via	Freq (min)	Service Begins	Service Ends
5th Ave N & John	16	Northgate	Downtown	Wallingford	30	5:14 AM	12:54 AM
5th Ave N & John	3/4	Queen Anne	Downtown		8-30	5:52 AM	1:50 AM
5th Ave N & John	82	Greenlake	Downtown	Seattle Ctr	75	2:22 AM	3:37 AM
6th & Denny	8	Seattle Ctr	Cap Hill		30	5:55 AM	11:44 PM
5th Ave N & Broad	74	Sandpoint	Seattle Ctr	Fremont	30	5:58 AM	7:27 PM
Aurora & John	358	Aurora Vill.	Downtown	Green Lake	15-30	4:55 AM	1:37 AM
Aurora & John	5	Shoreline	Downtown	Fremont	10-30	5:15 AM	1:15 AM
4th Ave & Cedar	19/24	Magnolia	Downtown	Seattle Ctr	30	5:45 AM	1:06 AM
4th Ave & Cedar	33	Magnolia	Downtown	Seattle Ctr	40-60	6:15 AM	10:25 PM
5th Ave & Battery	54	White Center	Downtown		30	5:21 AM	1:05 AM
5th Ave & Battery	55	Admiral	Downtown		20	6:11 AM	7:42 PM

The current Monorail line terminates at the Monorail North station, located within the Seattle Center, approximately 0.2 miles northwest of Taylor Avenue and John Street. The Monorail currently runs between the Seattle Center and Westlake Center and operates from 11:00 a.m. to 7 p.m. Monday through Thursday, 11:00 am to 9:00 pm Friday, 9:00 am to 9:00 pm Saturday, and 9:00 am to 7:00 pm Sunday.

Bicycle Paths

Within the Transportation Strategic Plan, 5th Avenue North and Denny Way are designated Bicycle Streets. Bicycle Streets are defined as an on-street bicycle network that connects neighborhoods and urban centers and villages and serves major inter-modal connections. No roads located within or adjacent to the Triangle are identified as bicycle paths on SDOT's Seattle Bicycling Guide Map²⁷.

Pedestrian Paths

Pedestrian flow into and out of the Triangle is directed along the same paths as automobiles. Therefore, pedestrians traveling through the Triangle face many of the same challenges as motorists. Crosswalks are located at regular intervals along Denny Way; however, pedestrians must often wait several minutes to cross. As with automobile flow, pedestrian flow across Broad Street is limited to the portion west of 5th Ave North. Aurora Avenue is a significant barrier for pedestrians, as the Broad Street underpass, with its narrow sidewalks and towering concrete walls is the only place north of Denny Way for pedestrians to cross Aurora Avenue. Sidewalks line most of the streets within the Triangle, but pedestrian amenities are otherwise lacking.

Future Plans

Viaduct Replacement

The aging Alaskan Way viaduct, damaged during the 2001 Nisqually Earthquake, is at risk of failure and must be removed. Following three years of environmental and engineering review, the tunnel option was selected as the preferred alternative. The tunnel alternative will entail removing the viaduct, constructing a tunnel under Alaskan Way between Dearborn Street and Pine Street and constructing an elevated bridge between Pine Street and the Battery Street Tunnel. North of the Battery Street Tunnel, the Mercer underpass will be widened by expanding Mercer Street from four eastbound lanes to a seven-lane, two-way roadway with three lanes in each direction and a center turn lane. A new two-lane bridge will be built over Aurora/SR 99 at Thomas Street, and Broad Street will be closed between Fifth Avenue to Ninth Avenue²⁸. Construction is slated to begin in 2009,

assuming that funding becomes available.

Monorail

Construction of the new Green Line is scheduled to begin in 2005, with service being brought online in 2009. The existing Monorail and its associated infrastructure will be removed. The Green Line will extend from Crown Hill, though Downtown Seattle to West the Morgan Junction in West Seattle.

In the vicinity of the Triangle, the line will run eastward through the northern portion of Seattle Center, then southward along 5th Avenue North/5th Avenue. A new station will be constructed within the Triangle, at the southwest corner of 5th Avenue North and Broad Street. The station will include switches for a Downtown Turnback to allow quick, convenient shuttle service through Downtown between Seattle Center and the stadiums²⁹.

Integrating the Monorail is a City of Seattle program that will guide and support the implementation of the Green Line through station area planning, design review, engineering support, and project approvals and permits. Thus far, the program has put forth a number of recommendations for the 5th/Broad station, including the following:

- Implement intersection improvements at 5th Ave North/Broad Street and John Street/Broad Street
- Implement pedestrian improvements along 5th Ave North, John Street and Broad Street
- Extend Seattle Center theme with landscaping improvements and sculpture installations
- Increase pedestrian connections across Broad Street between the 5th/Broad station and Seattle Center³⁰

Surrounding Neighborhood Plan Summaries

The “Unnamed Triangle” is the area bounded by Denny Way, Aurora Ave., and Broad St. in Seattle. While the Triangle is not accounted for in any City of Seattle neighborhood plan, it is surrounded by four neighborhood planning areas: Denny Regrade/Belltown, Denny Triangle, South Lake Union, and Queen Anne. This analysis summarizes each of these neighborhood areas’ key points and its relation to the Triangle. For further reference, the City’s neighborhood plans are available at:

<http://www.cityofseattle.net/neighborhoods/npi/plans.htm>

Denny Regrade/Belltown

The Denny Regrade/Belltown neighborhood adjoins the Triangle along Denny Way between Broad Street and 6th Avenue North. The neighborhood’s goals center around housing, land use, transportation, community enrichment and social services, and public safety and neighborly regulations. The key strategies to achieving these goals are creating green streets and connecting open spaces; maintaining Belltown’s character even when the “neighborhood becomes the densest residential community in the city” by promoting mixed-uses and incomes; and sustaining adequate parking for the neighborhood’s residents, business, and employers.

Denny Triangle

The Denny Triangle borders the Unnamed Triangle for approximately one block on Denny Way between Aurora Avenue and 6th Avenue North. The neighborhood is employing several key strategies aimed at increasing higher density development including:

Amending zoning and the bonus system to stimulate housing development
Neighborhood improvements to create residential enclaves along designated green streets

Transportation and traffic circulation improvements including those related to I-5 and Aurora bottlenecks.

Using Convention Place Station to develop a “transit-village” mixed use project.

Queen Anne

The Queen Anne neighborhood adjoins the Triangle on Broad Street between Denny Way and Aurora Avenue North. The plan’s main goals surround the neighborhood’s community character, human services and housing, land use, parks and open space, transportation, and the Queen Anne Business Districts. One of the key strategies of the plan, in relation to the Triangle, is the implementation of the “Uptown Concept.” This concept is focused on densifying Uptown (Lower) Queen Anne. Uptown Queen Anne is a City of Seattle designated Urban Center. The concept includes the following strategies:

- Uptown Park Neighborhood: Uptown Queen Anne’s residential core
- Sustaining a high-quality residential neighborhood in the Uptown Queen Anne Urban Center
- Uptown Center: Queen Anne’s Crossroads Village
- Creating a viable, pleasant, and unique mixed-use urban neighborhood in the Urban Center

- Counterbalance: the historic link between Uptown Queen Anne and Upper Queen Anne
- Providing a consistent, convenient, continuous, and frequent means for Queen Anners to access the important destinations within their community and to provide a strong transit link between Uptown Queen Anne and Upper Queen Anne.
- Queen Anne Bicycle Beltway: an alternative to the workday auto commute
- Providing a safe and convenient bicycle alternative to the workday automobile commute for Queen Anners... by completing the existing network of bicycle facilities... which will encircle Queen Anne Hill.
- Good Neighbor Seattle Center: enhancing relations with the community
- Promoting more efficient mobility and enhanced access to and around Seattle Center and to reduce potential traffic/parking impacts on the Upper Queen Anne community.

Additionally, while not part of the neighborhood plan, this group looked at future plans for the Seattle Center. The Seattle Center is a 74-acre campus on the edge of the Queen Anne neighborhood; the site was chosen for the 1962 World's Fair and is best known for landmarks such as the Space Needle and the Experience Music Project. The Center is experiencing financial challenges that will impact its future. In 2003, the City approved an eight-year, \$10 million loan to the Center; in order to close part of the revenue gap, according to the City's budget, the Center is starting to "implement a property development strategy designed to maximize revenue from peripheral properties not essential to the Seattle Center's mission." The Gates Foundation is developing a headquarters office complex on a former Seattle Center parking lot and other development opportunities may be on the Center's future horizon, as well.

South Lake Union

The South Lake Union neighborhood is currently undergoing significant changes. The SLU area borders the Unnamed Triangle along Aurora Avenue between Denny Way and Broad Street. The neighborhood plan focuses on promoting the neighborhood's character, creating new parks and open space, and addressing serious transportation problems, including those of the "Mercer Mess." SLU has been designated as an Urban Center and is targeted for increased densities and a mixture of land uses.

Within the neighborhood plan, there is an emphasis on supporting the character of the SLU's subareas, consisting of:

- Cascade—a mix of commercial, housing and social services
- Westlake—the historic commercial core
- The Waterfront—including South Lake Union Park and all existing water dependent activities around South Lake Union

The plan recognizes that the adjoining neighborhoods, which share Denny Way and Aurora Avenue have "development potential that will *dramatically* alter their present character."

Appendix B

Potential Economic Impacts of Triangle Development

Long-term development strategies have impacts that, by their long-term nature, are uncertain. Some of those uncertain impacts are economic. The following report estimates potential economic impacts of the development alternatives presented earlier based on methodologies developed in the Heartland³¹ and Paul Sommers³² Reports. Those reports specifically dealt with the South Lake Union neighborhood. The appendix focuses on household, employment, and tax revenue projections.

The City and statewide revenue is estimated from 2008 to 2025 in current dollars and in net present value terms.

One key difference between the methodology employed in the Sommers report and that used here is that this report collapses all development into one phase and analyzes only direct economic impacts. That is, it assesses only projected development in the area and potential increases in employment as developments come online.

Base Assumptions³³

- Average assessed value of biotechnology research space: \$251 per square foot
- Average assessed value of commercial space: \$201 per square foot
- Average assessed value of residential space: \$100 per square foot
- Average household size: 2.3 persons
- Residential efficiency factor: 0.6
- Commercial efficiency factor: 0.7
- Land costs represent 15% of total development costs and are not subject to the sales tax on construction.
- Development will occur evenly through time between 2008 and 2020
- Annual discount rate: 3%
- Constant tax and utility rates
- Average of 3.29 employees per 1000 square feet of mixed-use commercial space
- Seven construction jobs per million square feet of construction; terminate in 2020

Alternative-specific Assumptions

	Building Height	Residential Unit Size	Developable Area in Residential Use	Remaining Area in: Office, Commercial, Biotech Use
Alternative A	7 stories	900 sq. ft.	60%	45%, 50%, 5%
Alternative B	6 stories	1000 sq. ft.	70%	50%, 50%, 0%
Alternative C	8 stories	750 sq. ft.	35%	50%, 50%, 0%

Housing & Population

	Residential Development Capacity	Unit Capacity	Population Capacity
Alternative A	2.4 million square feet	2700	6200
Alternative B	2.4 million square feet	2400	5600
Alternative C	1.6 million square feet	2200	5000

Commercial Space & Employment

	Total Commercial Space (total)	Commercial Space (net change from present)	New employment	Total Employment
Alternative A	2.5 million square feet	1.2 million square ft.	4000	8200
Alternative B	1.8 million square feet	500,000 square ft.	1700	6000
Alternative C	4.1 million square feet	2.9 million square ft.	9500	13,700

Fiscal Impacts

The City of Seattle and the State receive property, business and occupation, sales, retail and utility taxes. The estimates below show the cumulative net present values of projected revenues from Triangle development alternatives.

<u>Statewide</u>	Property Tax Revenue	B&O Tax Revenue	Sales Tax Revenue³⁴	Retail	Utility Fees Revenue	Total Tax Revenue
Alternative A	\$40.5 million	\$32.2 million	\$33.9 million	\$73.6 million	\$11.7 million	\$191.9 million
Alternative B	\$24.8 million	\$14.4 million	\$20.8 million	\$31.9 million	\$7.2 million	\$99.2 million
Alternative C	\$ 52.7 million	\$78.4 million	\$44.2 million	\$173.3 million	\$13.8 million	\$362.5 million

<u>City of Seattle</u>	Property Tax Revenue	B&O Tax Revenue	Sales Tax Revenue³⁵	Retail	Utility Fees Revenue	Total Tax Revenue
Alternative A	\$14.4 million	\$8.3 million	\$10.4 million	\$7.1 million	\$7.1 million	\$40.1 million
Alternative B	\$8.8 million	\$3.8 million	\$5.1 million	\$3.1 million	\$4.9 million	\$22.5 million
Alternative C	\$18.7 million	\$20.6 million	\$21.0 million	\$16.7 million	\$7.6 million	\$68.0 million